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THE UNIVERSITY OF ALBERTA

A STUDY OF THE VARIATIONS POUR PIANO BY JACQUES HÉTU

by

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AN ESSAY SUBMITTED TO
THE DEPARTMENT OF MUSIC IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MUSIC IN APPLIED MUSIC

DEPARTMENT OF MUSIC

EDMONTON, ALBERTA
SPRING, 1978

THE UNIVERSITY OF ALBERTA

DEPARTMENT OF MUSIC

The undersigned certify that they have read, and recommend to the Department of Music for acceptance, an essay entitled "A Study of Variations pour piano by Jacques Hétu" submitted by Theresa Mary Elizabeth Hryciw in partial fulfillment of the requirements for the degree of Master of Music in Applied Music.

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ABSTRACT

Detailed analysis of Canadian compositions are few and far between. There is a great wealth of first-rate Canadian compositions which are worthy of both the scrutiny and performance by music students and professional musicians alike. The author hopes that those who read this paper will take further interest and initiative in exploring the works of Canadian composers.

Chapter One consists of a brief biography of Jacques Hétu and a list of his musical works and writings to date. A structural analysis of the Variations, Op. 8 (1964) follows in Chapter Two. Here the author investigates the composer's particular treatment of the tone row, form, rhythm, meter, and contrapuntal and harmonic textures. In addition, there is a section devoted to the pianistic aspects of the writing.

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GLOSSARY OF ABBREVIATIONS

P - Prime set

I - Inversion

R - Retrograde

RI - Retrograde of the Inversion

MI - Mirror Inversion

RMI - Retrograde Mirror Inversion

T - Tritone (either augmented fourth or diminished fifth)

CHAPTER I

BIOGRAPHY[1]

Jacques Hétu was born on August 8, 1938 in Trois-Rivières, Quebec. There was nothing in his family background that foreshadowed his musical career. At the age of 15 he decided to pursue a career in music and was accepted in 1956 by the Conservatoire in Montreal. There he studied composition with Clermont Pépin and acquired solid backgrounds in both piano and oboe.

In 1961, Hétu won the composition prize awarded by the Conservatoire as well as several other scholarships. A scholarship from the Canada Council enabled him to go to Paris for further study. There he studied composition with Henri Dutilleux at the Ecole Normale de musique (1961-63) and analysis with Olivier Messiaen at the Conservatoire (1962-63). It was during this period that Hétu first began composing for the piano and orchestra.

Upon returning to Canada in 1963, Hétu was appointed professor of music literature and analysis at the Ecole de musique de l'Université Laval. He is now professor of compo-

---

[1]The principal source for biographical information in this essay is J. Beckwith and K. MacMillan, Editors, Contemporary Canadian Composers (Toronto: Oxford University Press, 1975), pp. 97-99.

sition, analysis, and orchestration at the University.

Jacques Hétu says, "To compose is to choose. Yet one must be free to choose."[2] As a composer, he aims for a composite style. Speaking of his own compositional technique he states:

> Personally, as to what concerns my compositional technique, I see no use in abandoning completely the writing methods of the past; I am searching for a synthesis of the past and present elements, adopting from each what seems usable to me. In other terms I believe the existence of a style possible through the use of several systems.[3]

Hétu remains faithful to his word. His compositions remain attached to structural forms of the past, often using the sonata allegro, the ternary adagio, the scherzo, the rondo and exploiting techniques derived from the variation principle, as in Variations, Opus 8 (1964, piano), Variations, Opus 11 (1967, violin), and Passacaille, Opus 17 (1970, orchestra).

In many of Hétu's compositions, the influence of several prominent twentieth-century composers is evident. The influence of Bartok and Hindemith appears in his early works such as Toccata, Opus 1 (1959, piano) and Symphonie pour Cordes, Opus 2 (1959).[4] Hétu's admiration for the

---

[2]Jacques Hétu, "Pour un style composite," Vie Musicale, 11 (Mar. 1969): 12.

[3]Ibid.

[4]J. Beckwith and K. MacMillan, Editors, Contemporary Canadian Composers (Toronto: Oxford University Press, 1975), p. 98.

Viennese school resulted in strong atonal compositions making use of serial techniques. Of the composers of the Viennese school, he holds Alban Berg in high esteem. In an interview Hétu was asked who his favourite composer was and he replied:

> Alban Berg, because of the virtuosity of his technique, because of the conciseness of his works and above all, for the stylistic synthesis which he has achieved.[5]

Jacques Hétu, as a composer, has a preference for the piano - solo or in concertante. This is evident through the number of compositions he has written which uses this instrument. In addition he has written numerous works for orchestra, voice, instrumental ensembles, instrumental solos and several concertos.

Musical Works and Writings

Orchestra

Prélude pour orchestre, Opus 5, 1961.

Symphonie No. 2, Opus 4, 1961.

L'Apocalypse, Opus 14, 1967.

Passacaille, Opus 17, 1970.

Symphonie No. 3, Opus 18, 1971.

Antinomie, Opus 23, 1971.

String Orchestra

Symphonie pour Cordes, Opus 2, 1959.

---

[5] "Jacques Hétu - a portrait," Musicanada, 27 (Mar. 1970): 9.

Adagio et Rondo pour orchestre à cordes, Opus 3 No. 1B, 1960.

Soloist(s) with Orchestra

Rondo pour violoncelle et orchestre à cordes, Opus 9, 1965.

Double Concerto pour violon, piano et orchestre de chambre, Opus 12, 1967.

Concerto pour piano, Opus 15, 1969.

Fantaisie pour piano et orchestre, Opus 21, 1973.

Choral

Les Djinns, Opus 22, 1975.

Pièce en Miroir, 1964.

Voice

Les Clartés de la Nuit, Opus 20, 1972.

Instrumental Ensemble

Adagio et Rondo pour quatuor à cordes, Opus 3 No. 1, 1960.

Trio pour flûte, hautbois et clavecin, Opus 3 No. 2, 1960.

Quatre pièces pour flûte et piano, Opus 10, 1965.

Quintette pour instruments à vent, Opus 13, 1967.

Cycle pour piano et instruments à vent, Opus 16, 1969.

Quatuor à Cordes, Opus 19, 1972.

Nocturne, Opus 26, 1977.

Aria, Opus 27, 1977.

Piano

Toccata, Opus 1, 1959.

Petite Suite, Opus 7, 1962.

Sonate pour deux pianos, Opus 6, 1962.

Variations, Opus 8, 1964.

Prélude et danse, Opus 24, 1977.

Instrumental Solo

Variations pour violon seul (ou alto ou violoncelle), Opus 11, 1967.

Rondo varié, Opus 25, 1977.

Literary Works (Article)

"Pour un style composite," Vie Musicale, No. 11, Mar. 1969 (12-15).

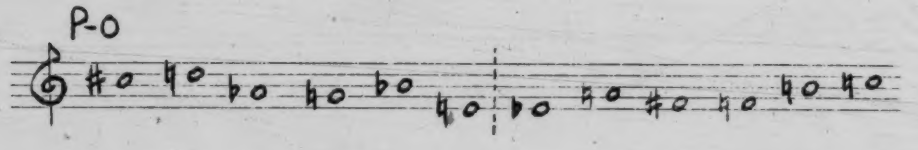
CHAPTER II

STRUCTURAL AND STYLISTIC ANALYSIS

The Variations pour piano, Opus 8 (1964) of Jacques Hétu is a serial work and is comprised of an Introduction and four variations: Introduction: Maestoso; Variation I: Vivace; Variation II: Adagio; Variation III: Andante; and Variation IV: Allegro molto to which is attached a final Coda: Maestoso. The work proceeds as a succession of short movements, each with a distinct and clear-cut character.

The Series

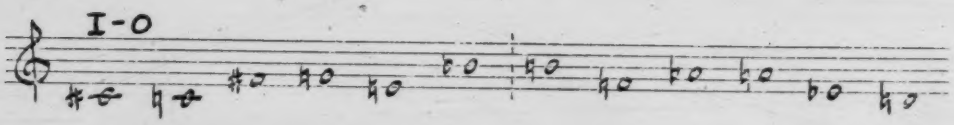
The material on which the Variations are based is a tone row similar in construction to those Schoenberg used in his later works.



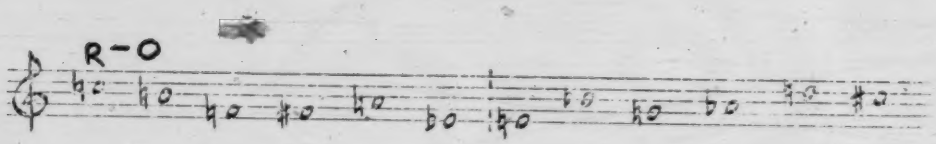
Example 1. The tone row.

The row can be divided into two hexachords, the second of which is the retrograde transposition of the first, at a

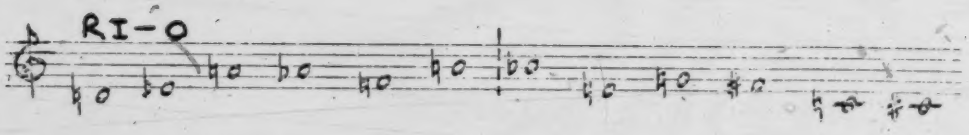
near variant.[6] The other forms of the row which could be employed are as follows:



Example 2(a). Inversion (I) of the row.



Example 2(b). Retrograde (R) of the row.



Example 2(c). Retrograde of Inversion (RI) of the row. (not to be confused with Retrograde Inverted)

There are two Mirror Inversions (MI) of the series: one occurring at the interval of a minor second below the original form of the row and the other at a perfect fifth below. Of these, the composer chooses to use only the MI occurring at a minor second below. The relationship between hexachords I and II of the original row and those of this MI is clearly shown in the following example.

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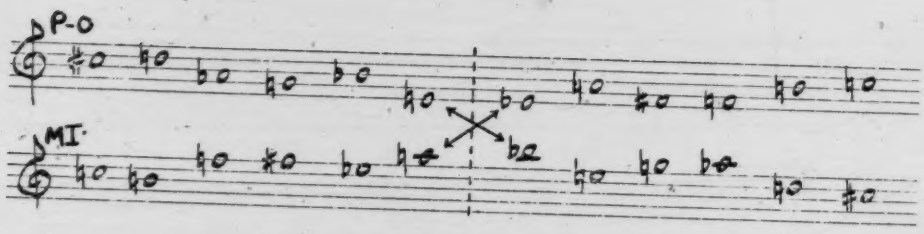
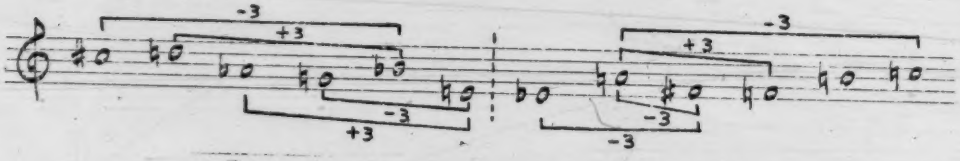
[6]Jacques Hétu, "Pour un style composite," Vie Musicale 11 (Mar. 1969): 12.

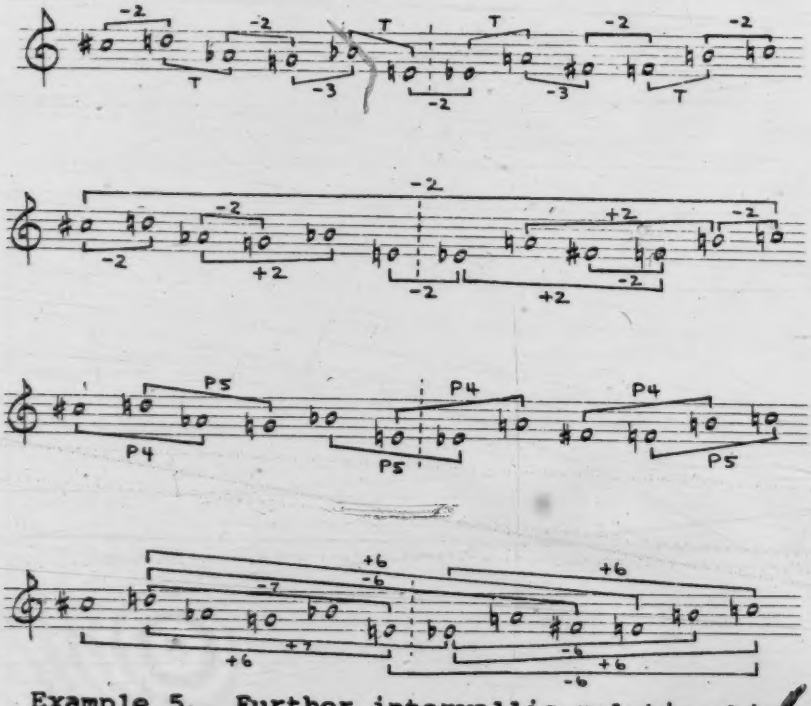


Example 3. Mirror Inversion.

Further analysis of the row reveals that each of the hexachords contains a four-tone compilation of minor thirds, which, when sounded together, produce the diminished seventh chord.



Example 4. Major and minor 3rd intervallic relationships.

The other intervallic relationships which occur between the notes of the row are:

Example 5. Further intervallic relationships.

To facilitate analysis, a chart of the transpositions of the various forms of the row is necessary. The original row appears at the top, left to right. Its inversion is at the left, top to bottom. Transpositions, as required, appear parallel. Retrograde forms are simply read from right to left.

	0	1	7	6	9	3	2	8	5	4	10	11
P-0	C#	D♮	A♭	G♮	B♭	E♮	E♭	A♮	F#	F♮	B♮	C♮
P-11	C♮	C#	G♮	F#	A♮	E♭	D♮	A♭	F♮	E♮	B♭	B♮
P-5	F#	G♮	C#	C♮	E♭	A♮	A♭	D♮	B♮	B♭	E♮	F♮
P-6	G♮	A♭	D♮	C#	E♮	B♭	A♮	E♭	C♮	B♮	F♮	F#
P-3	E♮	F♮	B♮	B♭	C#	G♮	F#	C♮	A♮	A♭	D♮	E♭
P-9	B♭	B♮	F♮	E♮	G♮	C#	C♮	F#	E♭	D♮	A♭	A♮
P-10	B♮	C♮	F#	F♮	A♭	D♮	C#	G♮	E♮	E♭	A♮	B♭
P-4	F♮	F#	C♮	B♮	D♮	A♭	G♮	C#	B♭	A♮	E♭	E♮
P-7	A♭	A♮	E♭	D♮	F♮	B♮	B♭	E♮	C#	C♮	F#	G♮
P-8	A♮	B♭	E♮	E♭	F#	C♮	B♮	F♮	D♮	C#	G♮	A♭
P-2	E♭	E♮	B♭	A♮	C♮	F#	F♮	B♮	A♭	G♮	C#	D♮
P-1	D♮	E♭	A♮	A♭	B♮	F♮	E♮	B♭	G♮	F#	C♮	C#

I ↓ (at P-3)

R ← (at P-9)

RI ↑

As seen in the chart above, the integers from 0 to 11 that appear above the pitch class names of P-0, can be substituted for the note names. The integers are assigned to the successive notes of an ascending semitonal scale whose initial element, pitch no. 0, will be the same as

the first note of the prime form of the set.[7] Thus, Example 1 can be represented as 0 1 7 6 9 3 2 8 5 4 10 11. If the form is transposed a perfect fifth above, it will be identified as P-7. The various transpositions as they appear will be identified similarly. The same applies in identifying the Inversion (I), Retrograde (R), and Retrograde of Inversion (RI) of the original form of the row and their respective transpositions.

Throughout the Variations, priority is given to only certain forms of the row as shown in the following list:

(1) P-0, I-0, R-0, MI-0, RMI-0

(2) P-6, I-6, RI-6

(3) P-3, I-3, RI-3, RMI-3

(4) P-9, I-9

(5) P-10, I-10, RI-10

(6) P-4

(7) P-2, I-2, R-2

(8) P-1, I-1

The forms of the row utilized in each section of the Variations are as follows:

Introduction: P-0, R-0, MI-0
P-4
RI-10
RI-3

Variation I: P-0, R-0
P-4

Variation II: P-0, I-0, MI-0
P-1, I-1
P-3
I-9
P-2

---

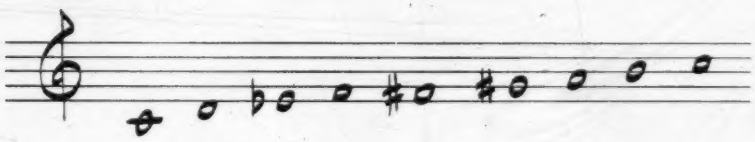
[7] George Perle, Serial Composition and Atonality (Berkeley: University of California Press, 1972), p. 3.

Variation III: P-0
P-3, I-3
P-9
I-10
I-6, RI-6

Variation IV: P-0, R-0, MI-0, RMI-0
P-6, I-6
P-10
P-3, RMI-3
P-2, I-2, R-2
P-4

As well as these forms, a free treatment of the row is also used.

In conjunction with the tone row, Hétu uses a modal scale that was catalogued by Olivier Messiaen.[8]



Example 6. Messiaen's modal scale

There is a similarity between this mode and the tone row: the notes of the second hexachord are also part of the mode. The fundamental use of the mode is in the area of harmony and it will be seen that the majority of the chords found in the Variations are constructed on the mode.

Form

Since the form evolves from the use of the row, these two aspects will be discussed simultaneously.

---

[8]Jacques Hétu, "Pour un style composite," Vie Musicale 11 (Mar. 1969): 14.

Introduction: Maestoso

The Introduction, bars 1 to 12, contains the theme and is in ternary form. The outline is as follows:

Section A, Bars 1-5(1)
- Presents essential elements of work
  - (1) Serial (theme)
  - (2) Modal (harmony)
  - (3) Tonal - C# tonal center which begins and ends this fragment[9]

Section B, Bars 5(3)-9
- Theme stated in augmentation and imitation
- Theme, P-4

Section A', Bars 10-12
- Presentation of theme in imitation and diminution
- New motive introduced: trill figure

The Introduction begins with the statement of the theme set out in accented treble octaves, bars 1 to 2. Here the first hexachord of the series is stated. The complete statement of the row with a repetition of the first hexachord follows in bars 3 to 5(1), now occurring with a gradual diminution of the note values. The repetition of the first hexachord indicates its prominence and importance.

Underlining the statement of the theme are the two other essential elements of this work: modal and tonal. The modal element is depicted as the supporting chordal harmony occurring in contrary motion underneath the theme. The chords written in the upper middle staff are constructed

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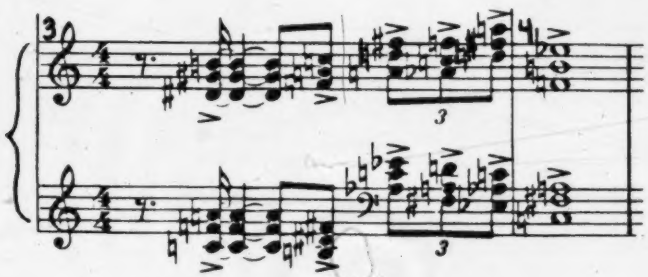
[9]Ibid.

independently from those in the lower middle staff. These chords, as they occur in the first four bars, are of the simple major, minor, and diminished triad variety in root position and first and second inversions. The one exception is the untraditional chord appearing in bar 4 which results from a combination of tertian and quartal chordal construction.

Example 7. Bars 3-4.

The resulting sound of the chords when heard in context, however, is one of polychords.

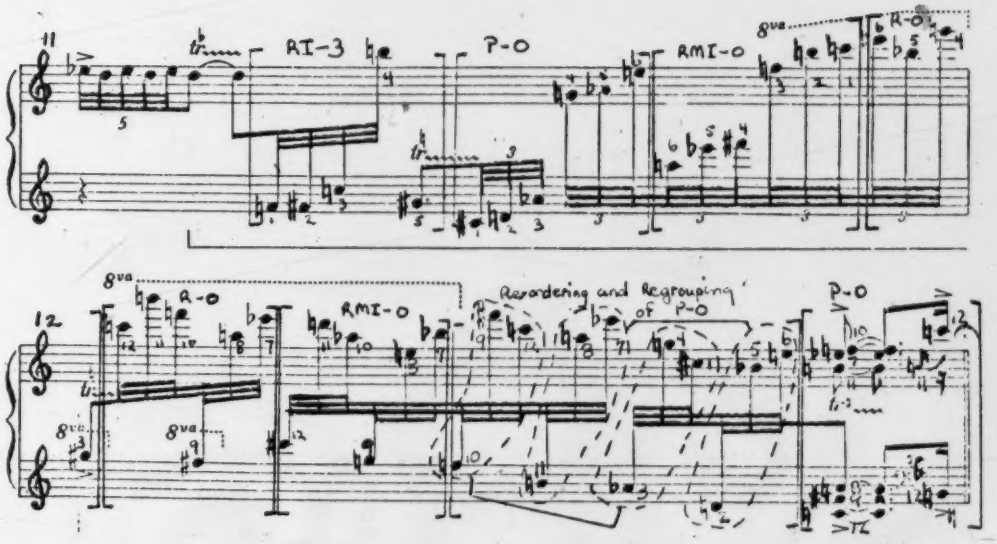
The composer indicates in his article "Pour un style composite," that the whole of this fragment is surrounded by a strong tonal element - the C♯ pedal. C♯ is supported by the following notes of the row: A♭ (G♯), B♭ (A♯), E♭ (D♯), F♯, and C♮(B♯), which include the dominant, subdominant and leading tone of the tonal center C♯.

Section B, bars 5(3½) to 9, follows after two and one-sixteenth beats rest. In bars 5(3½) to 7(2), the first six notes of the theme are stated in quarter notes in the bass and then imitated in the treble. From bars 7(2½) to 9(1), the theme is transposed to P-4. The first six notes of this transposition are outlined in the top voice of the treble line. The accompaniment in the bass is contrapuntal in

nature with imitation occurring between voices. It should be noted that Hétu does not continue the exact use of the row after the note A♭ in the treble of bar 9. The rest of the bar is his own personal free use of the row. This is depicted clearly in the chromatic ascending thirds in the middle voice of the bass and in the single ascending chromatic line occurring in the treble, middle voice. Later in the Variations, this chromatic line is again exploited in various ways. In conjunction with the ascending thirds, there is sequential imitation occurring in the top voice in the treble (D-A♭, E-B♭, F♯-C). The sequence in the treble line is balanced by another occurring in contrary motion in the lower voices of the bass line.

Section A' begins with the sixteenth-note rest in bar 10. In this one bar, all the essential elements of the work which were stated in Section A are restated in a compressed form. The theme is presented in two forms: (1) the last five notes of RI-10 in accented octaves in the treble and in single accented line in the bass and (2) the first six notes of P-0 in imitation and partial diminution with RI-10.

A new motive is introduced in bar 11, a trill figure, which leads into a cadenza-like passage of rapid figuration continuing to the end of bar 12. The various forms and transpositions of the row that occur in this passage are as follows:



Example 8. Bars 11-12.

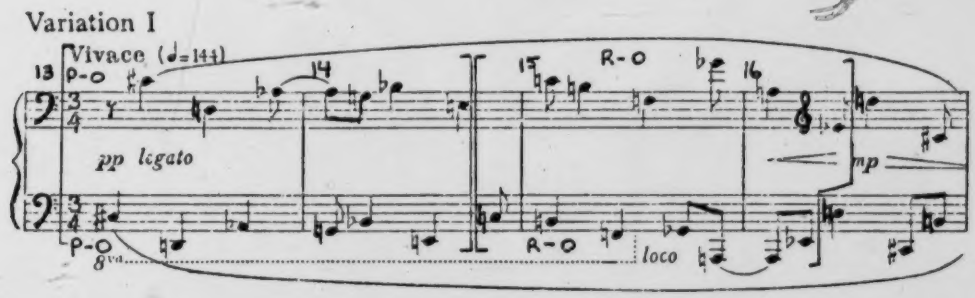
The last bar of the Introduction has an added sense of finality - the last note in the treble is C♮ which is the last note of the row.

Variation I: Vivace

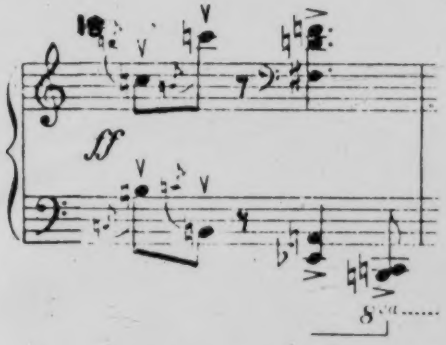
Variation I, bars 13 to 80(1), adopts an exclusively canonic representation of the theme. It is written in ternary form: Section A, bars 13 to 35; Section B, bars 36 to 57; Section A′, bars 58 to 74; with a short coda, bars 75 to 80(1). The outline is as follows:

A	Theme in canon at the octave	Bars 13-17
	Link (from mode)	18
	Theme in canon	19-23(2)
	Chromatic line in canon	23(3)-30
	Theme in canonic imitation	31-32
	Complete statement of tone row	33-35

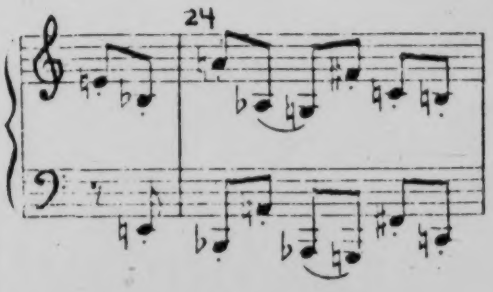
B	Free use of row in imitation by inversion	36-41(2)
	Two fragments used in alternation	41(3)-48
	Chromatic line in various forms of imitation	49-56
	Link (from mode)	57
A′	Repetition of A	58-74
	Codetta	75-81(2)

Variation I begins with the theme in a strict two-voice canon at the octave at a distance of an eighth rest. In bars 13 to 14(3), the bass starts the canon using the first hexachord of P-0. The treble follows using the same notes only at an octave above. The completion of the entire row appears in bars 14(3½) to 16(1½) where the second hexachord of P-0 is in retrograde.

Example 9. Bars 13-16.

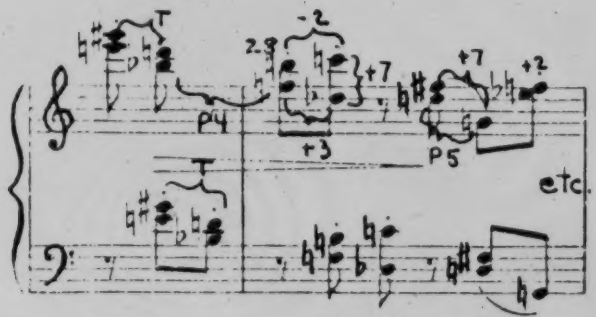
The canon continues in bars 16(2) to 17 using only notes 1, 2 and 11, 12 of the row. After a brief pause, there is a repetition of bar 17 in the first half of bar 18. The exact material is used but now appears an octave above

in diminution. The second half of bar 18 acts as a link into bar 19. The accented chords are derived from the mode.

Example 10. Bar 18.

The material found in bars 13 to 16(2) is repeated in bars 19 to 22(2). The one difference is that the treble starts the canon and is followed by the bass.

From bars 22(3) to 26(1½), the canon continues with the treble as leader. In bars 22(3) to 23(2), the first four notes of the row are transposed up a major third (P-4). Following this brief transposition, canonic imitation continues, making use of the chromatic line with octave displacements.

Example 11. Bars 23(3)-24.

In bars 26(2) to 30, the canonic imitation occurs using not only the chromatic line but also the tritone,

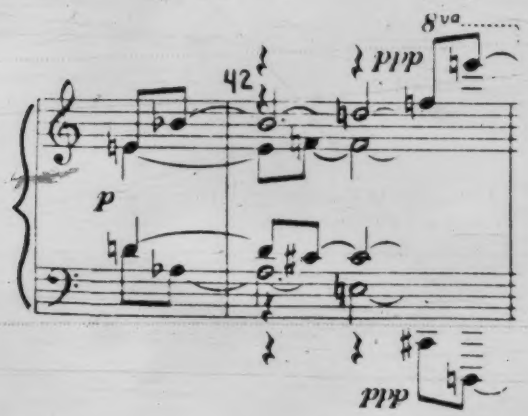
major and minor thirds, perfect fourths and fifths, and major sevenths relationships, both horizontally and vertically.

Example 12. Bars 27(2½)-28.

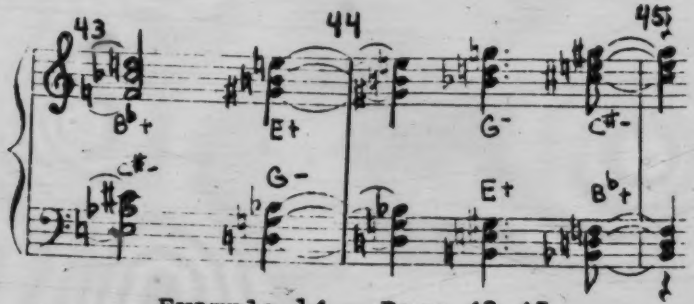
There is a return to the opening material in bars 31 to 32, with the bass leading, basically using the notes of the first hexachord of P-0 over a D♮ pedal. The canonic imitation discontinues after this point in Section A.

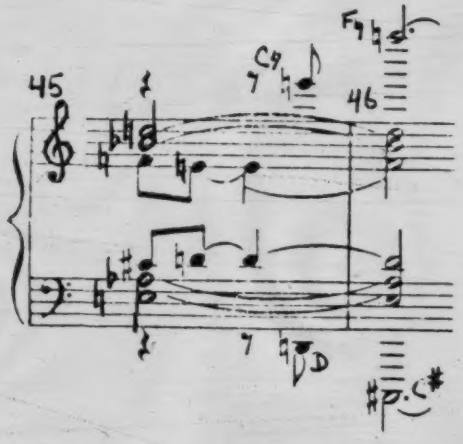
In bar 33 the second hexachord is stated in the following order: 7 8 9 / 12 11 10. The notes D♮ and C♯ are also present as in the opening bar of the Introduction. The figure of notes in bar 34 is an exact repetition of bars 31 to 32 in diminution. Section A ends with the D♮ pedal still holding with a fermata.

Section B consists of bars 36 to 57 inclusive. In bars 36 to 41(2), Hétu makes free use of the row in imitation by inversion. Underlining the imitation in this fragment is the C♯ pedal which continues unbroken to bar 55. The use of the pedal here is the same as it occurred in the Introduction.

In bars 41(3) to 48, two fragments of contrasting construction are written in alternation. The first fragment,

bars 41(3) to 42, comprises a free use of the row in broken chordal writing with inversion occurring both between the two outer voices and the two inner voices.

Example 13. Bars 41(3)-42.

The broken chord fragment is followed by another in solid form, bars 43 to 45(1). The construction of the solid chords as they appear in this fragment is similar to those occurring in the middle staves of the Introduction, bars 1 to 4. Individually, the triads in each stave are either major or minor but the resulting chordal sound that is heard is again one of polychordal construction. The chords in this fragment are not only proceeding in contrary motion but the chords appearing in the bass are in retrograde to those in the treble.

Example 14. Bars 43-45.

Bars 45(2) to 48 are similar in construction to bars 41(3) to 45(1). The inner voices of bars 45(2) to 46(1) are a retrograde version of that occurring in the similar bars 41(3) to 42. In the outer voices a reversal of the note order occurs only in the last two notes of the fragment. The other notes that were previously presented in broken form in bars 41(3) to 45 are now written in solid form.

Example 15. Bars 45(2)-46.

In bars 46(3) to 48, the chords proceed in similar motion as opposed to the contrary motion which occurred in bars 43 to 45(1). Individually, the chords are constructed as either G# or C# diminished sevenths and are exchanged between the hands alternately.

Section B closes with a return of the free use of the row, using the chromatic line with octave displacements. The material is treated in canonic imitation in bars 49 to 50(2), followed by imitation by inversion, bars 50(3) to 54(2). Mirror writing occurs between the parts from bars 54(3) to 55. In bars 56 to 57(1), there is a superimposition

of the two triads C minor and E major. The contrary motion involving the interval of a minor second that occurs between the upper and lower staves is similar to that in bars 45(2) to 46. The repetition of the link from bar 18(2½-3) in bar 57(2½-3) announces the return of Section A.

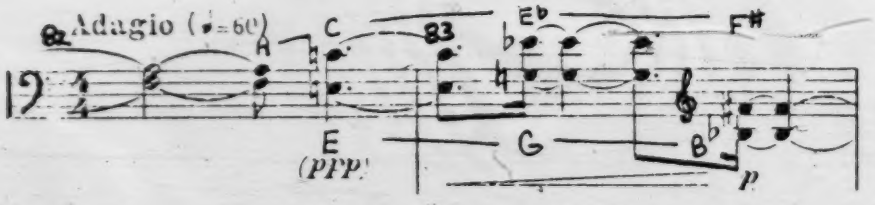
Section A', bars 58 to 74, is an exact repetition of bars 19 to 35 and is followed by a codetta, bars 75 to 80(2). The codetta is a bravura passage utilizing the first hexachord of P-0 and the first four notes of P-4 in alternation. In bars 79 to 80, there is a complete statement of the row similar to that which occurred in bars 31 to 34. Variation I ends in bar 81(1-2) with the statement of an accented C# in the treble followed by a B minor diminished chord in the bass which is derived from the mode.

Variation II: Adagio

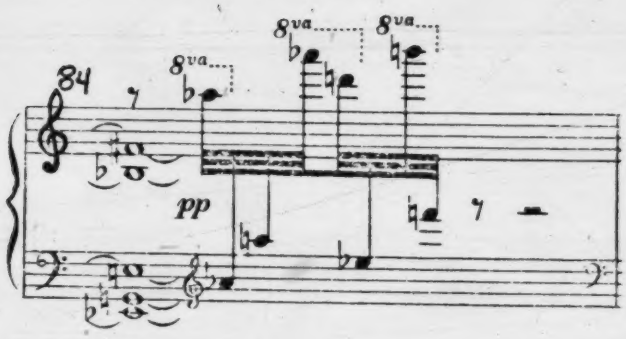
Variation II, bars 81(3) to 117, utilizes both the row and the mode extensively. As with Variation I, its structure is ternary: Section A, bars 81(3) to 90; Section B, bars 91 to 107; Section A', bars 108 to 112; with a coda, bars 113 to 117. The outline is as follows:

A	Three 3-bar segments each similar in construction and freely utilizing notes from mode and row	Bars 81(3)-90
B	Contrapuntal introductory segment freely constructed from row	91-94(1)
	Link	94(2-3)
	Three similar segments, the second and third being transpositions of the first	95-107

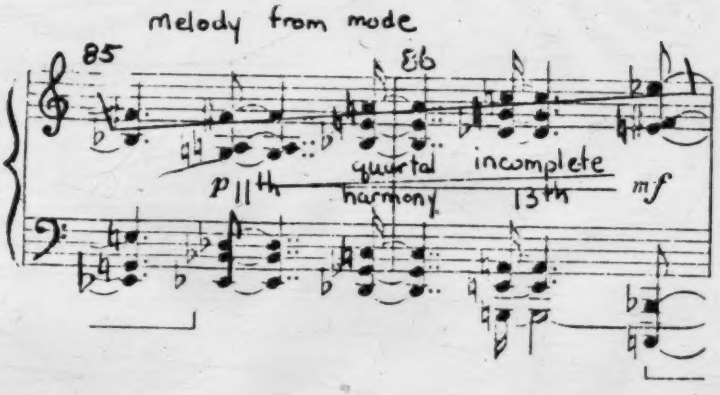
A'	Use of chromatic line in canonic imitation	108-109(3)
	Condensed and fragmented version of A	109(4)-112
Coda		113-117

Section A is divided into three 3-bar segments, each similar in construction (i.e. bars of chords moving in contrary motion followed by one bar of rapid figuration in the upper register of the keyboard). In bars 81(3) to 84(1), both the upper and lower staves are using independent chords. In the upper stave, top voice, starting with the note A, bar 82(1), and moving horizontally, a melodic line occurs using the notes from the mode forming a diminished seventh, A - C - E♭ - F♯(G♭). This is followed using the notes from the row in imitation by the second voice of the treble. This second voice produces an E - G - B♭ diminished triad.

Example 16. Bars 82-83.

The double thirds in the lower stave, bars 82 to 83, moving in similar motion with the upper stave are formed strictly from the free use of the row. The last chords in bar 83 are held through to bar 85(1), resulting in an overlapping of segments. In bar 84, the notes comprising the rapid figuration in the upper register of the keyboard are from the mode.



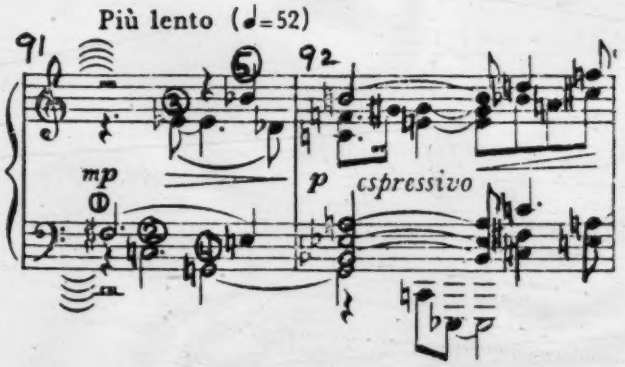
Example 17. Bar 84.

The second segment of Section A, bars 85 to 88, are similar in construction to bars 81 to 84. The notes of the melody in the treble continue to be taken from the mode and now form an F♯ - A - C - E♭ diminished seventh chord. The chords underlining the melody are formed from the row and the harmony results in higher numbered tertian chords such as elevenths and thirteenths. There is also an example of chordal construction producing quartal harmony which results in the evasion of tonality.

Example 18. Bars 85-86.

The virtuosic passage in bar 87, following the chordal segment, is an extended version of bar 84 utilizing the notes

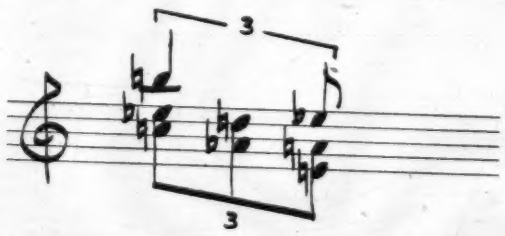
from the mode in pairs. There is one note in this passage that does not belong to the mode - the G♮. Its presence in the passage can be accounted for by the mere fact of its being part of the row. It is also within the artistic freedom of the composer to add or remove notes as he wishes.

In bars 89 to 90, the melody in the treble is comprised of a free ordering of the row. The melody which occurred in bars 85 to 86 now appears in retrograde in the top voice of the bass in bars 88 to 89. The melody formed from the row is moving in contrary motion to the melody formed from the mode as are the accompanying chordal figures. These melodies are harmonized independently by chords from the row. In bar 90, the virtuosic passage is extended even further than that which occurred in bar 87. The notes used in this passage are from the mode with the exception again of the G♮.

Section B comprises bars 91 to 107. In bars 91 to 92, the composer makes free use of the row in a contrapuntal context. Imitation occurs between five individual lines starting with the F♯ in the bass.

Example 19. Bars 91-92.

Bars 93 to 94(1) are a slightly simplified repetition of bar 92. A link occurs in the remaining space of bar 94. Here the row makes its first ordered appearance in this variation stating the first hexachord of P-0 and note 8 from the second hexachord.

The treatment of the material in the introductory bars of Section B, bars 91 to 94, is combined and exploited in the following three similar segments: bars 95 to 98; bars 99 to 101; and bars 102 to 107. In bars 95 to 98, there are two contrasting independent lines occurring simultaneously. These are the chordal line and the inner linear line. In bars 95 to 96, the chords and the inner line are formed from the row. The inner line of bar 95 uses the notes 1 to 7 of P-1 and is followed by I-1 in bar 96. The chords contain the rest of the members of the row not used in the inner line. In bar 96(3), notes used in the triplet figure in the bass are constructed from the mode except for the E♮ which belongs to the row.



Example 20. Bar 96(3).

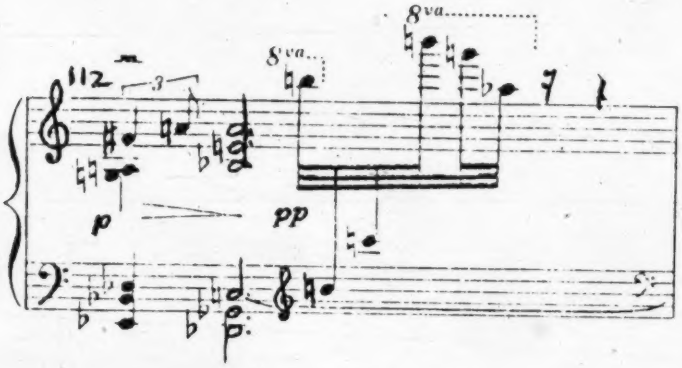
In the following two bars the inner line is in sequence. In bar 97, the sequence begins with the first hexachord of P-0 which is then followed in bar 98 by the first hexachord of P-3 and P-6. The solid intervals of a major third and perfect

fourth in the upper stave in bar 98 are from the mode. The chords sounded at the beginning of bar 95 are repeated in bars 96 and 97 resulting in a chordal pedal.

Bars 99 to 101 are a transposed version of bars 95 to 97. This segment is transposed a semitone below the previous segment. The chords are constructed using the notes of the mode with the exception of bar 100(3) in which the triplet figure in the bass is from the row. The inner lines continue to be derived from the row as in the previous segment. In bar 99, notes 1 to 7 of P-0 are used followed by I-0 in bar 100. The first four notes of P-0 are repeated in bar 101 followed by notes 5 to 7 of P-3.

The third segment, comprising bars 102 to 107, follows the same construction as the second segment. The chords appearing in bars 102 and 103 are transposed a fifth below those in bars 95 and 96. The chords are derived from the mode to the end of bar 107 with the exception of bar 103 (last sixteenth of beat 2 and all of beat 3) which is from the row. The inner lines alternate between P-3 and I-9 in bars 102 to 105. In bar 106, there is one final statement of the inner line using P-2. Section B ends with an A minor-major seventh chord sustained in the bass from bar 105.

Section A', bars 108 to 112, begins with canonic imitation between the upper and lower staves utilizing the chromatic line of the row, bars 108 to 109(3). All of the notes of the row are present in this two-bar segment except for D♮. In bars 109(4) to 112, there is a return of the material from bars 81 to 87. Bars 109(4) to 111 are an

almost exact repetition of bars 81(3) to 84. A condensed rhythmic variation of bars 85 to 87 follows in bar 112.

Example 21. Bar 112.

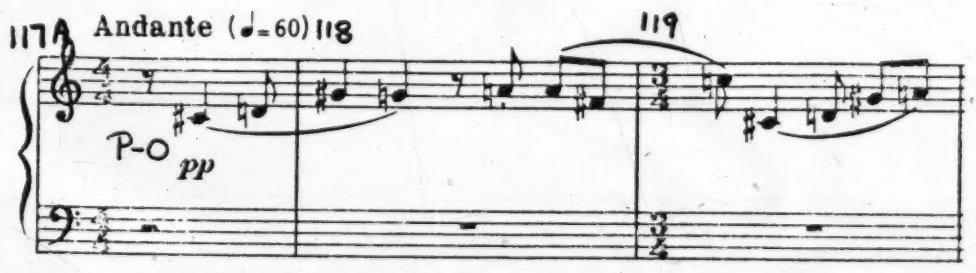
Like the ending of Variation I, Variation II closes with a coda, bars 113 to 117. In bars 113 to 114(2), the material from bars 92 to 93 of Section B is repeated and transposed up a minor third. The coda also includes a new rhythmic motive which is based on material from bar 12 of the Introduction. In bar 115, the new motive appears in a more concise and rhythmically varied form from that of the original. The motive, as it appears in bar 115(1) in the treble, is constructed of notes from the mode. This fragment is imitated in inversion by the bass in bar 115(4) and is also constructed from the mode. A similar procedure is found between the bass in bar 115(1) and the treble in bar 115(4). Here the motive in the bass is in RMI-0 of the second hexachord and is imitated by a free ordering of the row in the treble. The grace note figure in beat three in the treble and its inversion in the bass are from the first hexachord of P-0. The last two bars of the coda, bars 116

to 117, utilize the notes of the mode. The final chord appearing in bar 117 is tertian and is built on the sixth note of the modal scale.

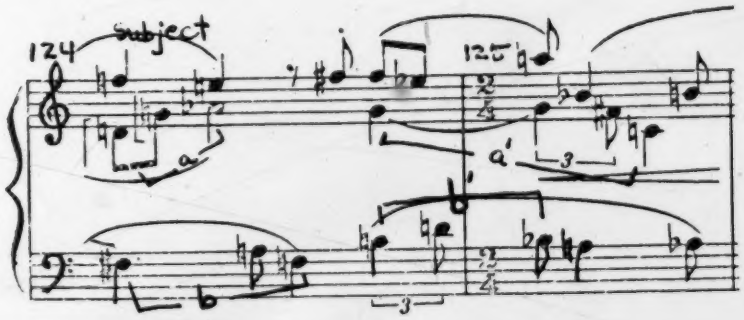
Variation III: Andante

Variation III, bars 117A to 146, is in the form of a three-voice fughetta. The outline is as follows:

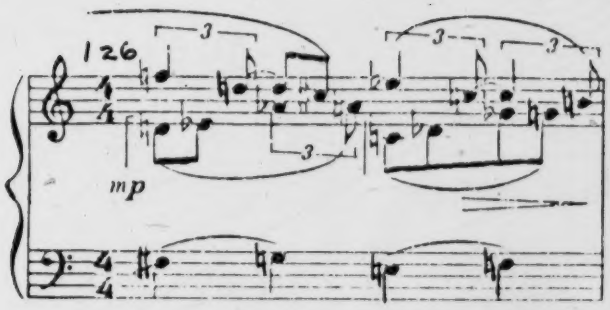
First section	Exposition	Bars 117A-126(1)
Middle section	Episode I	126(2)-129
	Subject in inversion and augmentation	130-132
Final section	Episode II	135(2½)-141
	Coda	142-146

The subject of the fughetta comprises the essential elements of the original theme in P-O.

Example 22. Bars 117A-119.

In the exposition, bars 117A-126(1), there are three successive announcements of the subject. The first entry of the subject appears in the alto voice in bars 117A to 118 using P-O as is seen in Example 22. The subject is answered by the tenor voice in P-3, bars 120 to 122. Against this answer the first voice has a countermelody which makes free use of

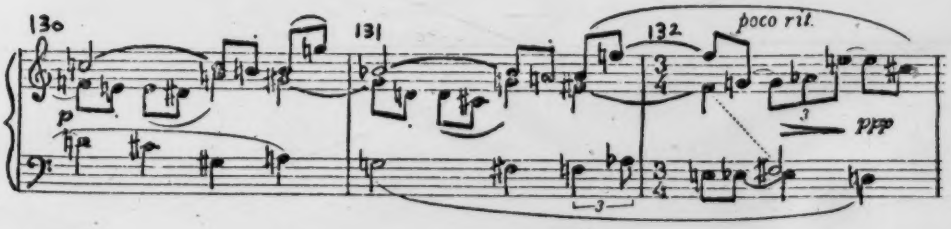
the row. The material of the countermelody has similar characteristics of the subject itself. This can be seen primarily in the descending intervals of a minor second, minor third, and the tritone. In bars 122(2) to 123(2½), a bridge is formed by a five-note descending segment in the alto voice which is imitated three beats later by the tenor. The soprano then announces the third and final entry of the subject using P-9 in bars 123(3) to 126(1). The countermelody accompanying the third entry continues to exploit certain intervallic relationships as in the first countermelody. In bars 124 to 125, the contrapuntal devices of imitation and retrograde imitation occur in the alto and tenor voices.

Example 23. Bars 124-125.

There is overlapping between the end of the countermelody and the beginning of Episode I in the tenor voice of bar 126. Episode I proper, bars 126 to 129, makes free use of the row. Motivic fragments of the subject are treated contrapuntally through the use of sequential imitation. The most exploited motivic fragment is that comprising the first four notes of the subject.



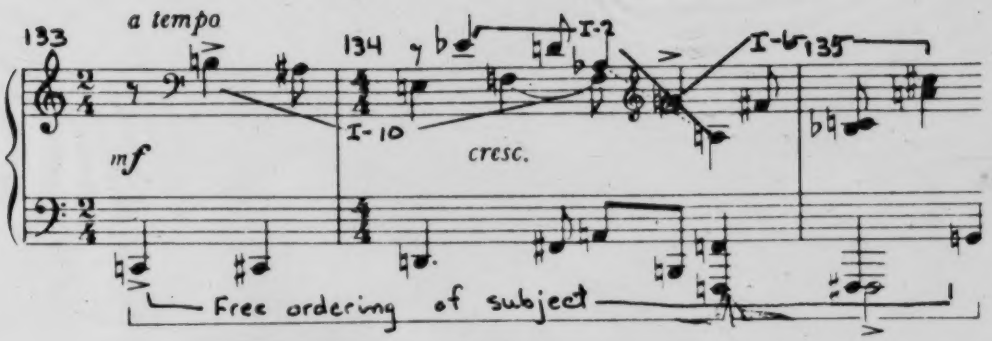
Example 24. Bar 126.

In bars 130 to 132, the subject is stated in the tenor voice making free use of the row in an inverted, partially augmented, and slightly modified form. The episode continues in the upper voices as in the previous bars.

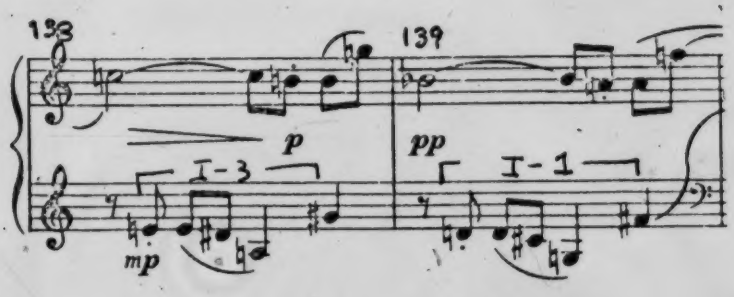


Example 25. Bars 130-132

The final section of the fughetta begins in bars 133 to 135(2) with a stretto involving all three voices. A free augmented treatment of the subject first appears in the lower stave in bar 133. This is closely followed by the stretto entries of the subject now inverted in the upper stave. The transpositions used in the various entries are shown in example 26.



Example 26. Bars 133-135(2).

Immediately following the stretto, a second episode occurs in bars 135(2½) to 141 treating the motivic fragments of the subject in sequential imitation and utilizing the row both strictly and freely. In bars 135(3½) to 137(2), a sequence occurs involving a partial statement of P-3 followed by P-4 which is also coupled in thirds. Further strict sequential utilization of the row appears in bars 138 and 139 in the lower stave. The transposition I-3 is followed by I-1.

Example 27. Bars 138-139.

The other motivic sequences that occur in conjunction with these strict forms are derived from a free use of the row. It should also be noted that the C♯ pedal makes its first appearance here.

The fughetta concludes with a coda, bars 142 to 146, which recalls the first four notes of the subject. In bar 142, the motive is first presented in the upper stave in RI-6 and is imitated by inversion in the lower stave in I-11. This imitation is repeated twice more through to bar 146. From bars 144(2) to 146 the motive appears in augmentation. The final chord is the product of the last two notes of RI-6 and I-11.

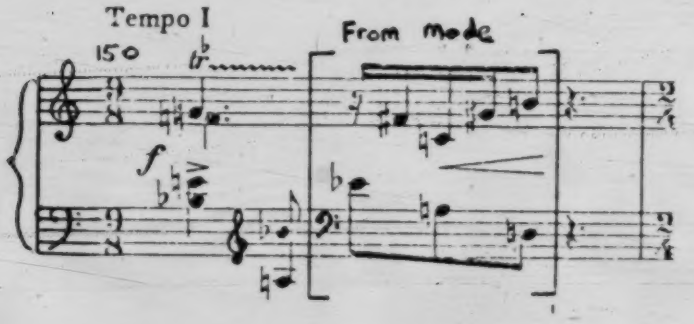
Variation IV: Allegro molto

Variation IV, bars 147 to 245, is the final variation. The fact that this variation is highly sectional and is written in a quasi-improvisational and virtuosic style indicates that it is a toccata. The outline of the form is as follows:

Section A	Two alternating contrasting segments each containing the theme	Bars 147-156
Section B	Fragmented statements of theme	157-159(4)
	Rhythmic variations of bars 157-159(4)	159(6)-163(2)
	Free use of chromatic line	163(3)-171

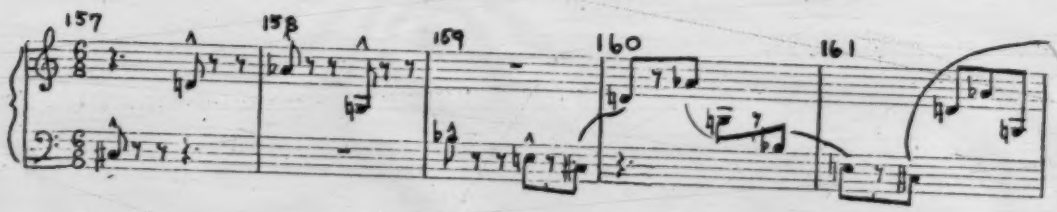
Section C	Two alternating segments each using the theme and an ostinato figure	172-187
	Sequential extension	188-191
	Link	192-194
	New ostinato figure using free form of row	195-197
	Link	198
	New ostinato over double pedal	199-207
	Sequential extension	208-210
	Transposition of bars 184-186	211-213
	Simple statement of theme followed by fragmented utilization of chromatic line	214-216
Section D	Rapid succession of changes between various forms and transpositions of the row	217-236(1)
Coda		236-245

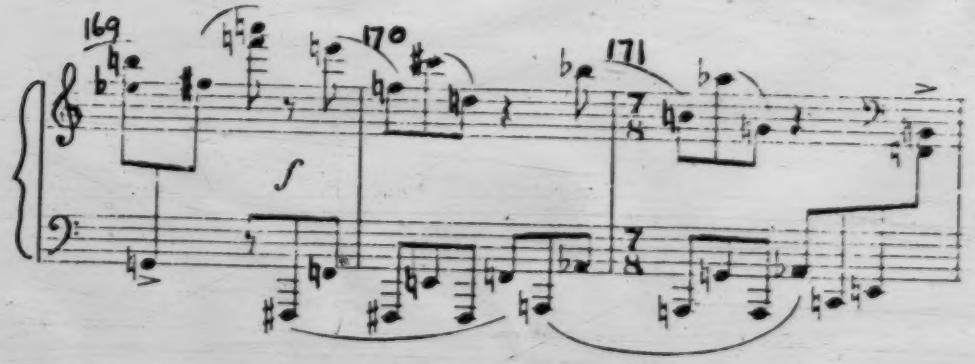
Section A, bars 147 to 156, is in effect an introduction to Section B. In the first segment, bars 146 to 148, the theme is stated in octaves using P-0. This is followed by a free ordering of the row in the grace note figure. The chords which complete the segment are derived from the mode. In the last beat and a half of bar 148, chord crossing occurs in the repetition of the previous chords. The second segment, bars 149 to 150, utilizes both the notes of the row and mode. In bar 149, the first four notes of P-0 are treated contrapuntally in canonic imitation by inversion. The following bar makes use of contrasting material. In this bar, the trill motive which was first presented in Section A'

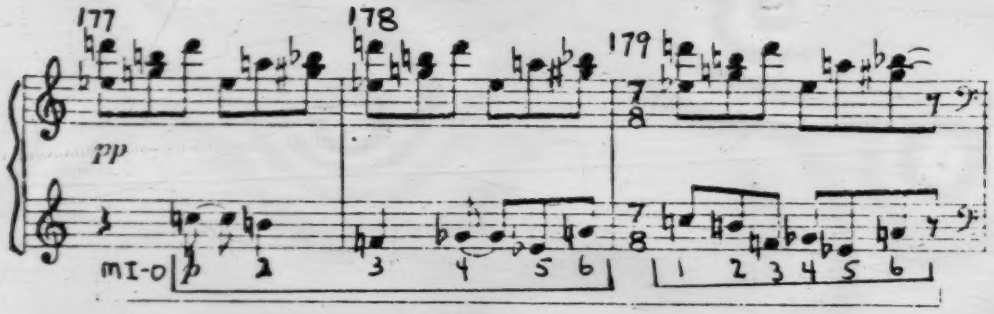
of the Introduction is brought back into focus. The first three beats of the bar consist of a free ordering of the row. The remaining notes are from the mode.

Example 28. Bar 150.

An extended version of bar 147 appears in bars 151 to 152. The theme is first stated in P-0 as in bar 148 and then is extended further by using the second hexachord of R-0. In bar 153, a free ordering of the second hexachord comprises the grace note figure. The chordal structure is built from the first hexachord of the row. With the final note F# in the bass, bar 153 makes complete use of all the notes of the row.

A slight variation occurs in the return of the second segment, bars 154 to 156. In bar 154, the notes used in canonic imitation by inversion are now from the second hexachord of P-0 and are ordered 11 12 / 9 10. A continuation of bar 154 occurs in bars 155 to 156. In both staves of these two bars, the composer uses a free ordering of the row in sequential-like patterns. Section A closes with a final repetition of the trill motive in the bass.

In Section B, bars 157 to 171, the theme is treated quite simply. It is first stated in a fragmented version in P-0 in bars 157 to 159(5). Three repetitions of the exact notes follow in bars 159(6) to 163(2). The repetitions are rhythmically varied in such a manner as to create the effect of an accelerando.

Example 29. Bars 157-161.

The same momentum that is achieved by bar 162 is utilized to the end of Section B, bar 171. From bars 163(3) to 169(2), a free use of the chromatic line with and without octave displacements is featured. The first set of accented notes which appear in the bass line, bars 164(5) to 165, are the notes ordered 9 8 7 of R-0. A similar occurrence in bars 168 to 169(1) incorporates the notes 5 4 1 of the first hexachord. In bars 169(3) to 171, the material is further treated by both sequence and imitation by inversion.

Example 30. Bars 169-171.

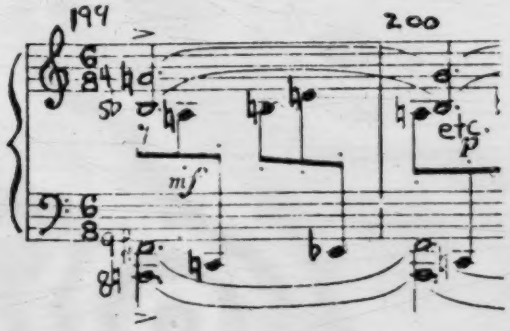
Section C, bars 172 to 216, continues to exploit the theme through the use of various transpositions, ostinato figures and pedal points. In bars 172 to 175(2), the first hexachord of P-0 is stated over a D# pedal followed by two repetitions each using the second hexachord of RMI-0. An ascending sequence follows, using the tritone intervallic relationships found in the row from bars 175(3) to 176. In bars 177 to 179, the first hexachord of MI-0 is repeated twice in the lower stave. The second repetition is in diminution.

Example 31. Bars 177-179.

As can be seen in the above example, the upper stave contains an ostinato accompaniment figure which is derived from a free use of the row.

A transposed repetition of bars 172 to 176 now occurs in bars 180 to 183. The transpositions used are P-3 followed by RMI-3, over a tritone pedal. The second segment, bars 177 to 179, is also repeated in an extended transposed version in bars 184 to 187. Here the row is transposed to I-2 and there are three repetitions each in a different rhythm. The ostinato figure in the upper stave is transposed a minor third above.

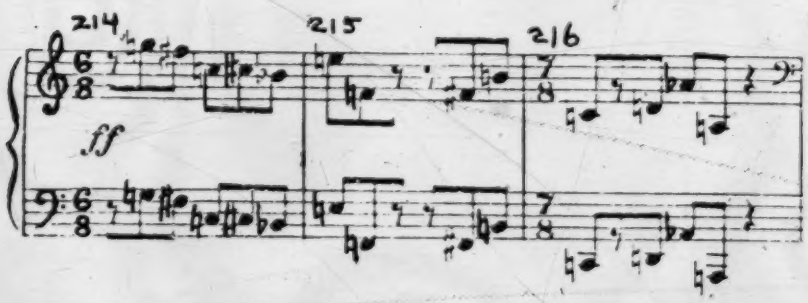
A sequential extension follows in bars 188 to 191 featuring the ostinato figure, a partial use of the row in R-0, and a C# pedal. From bars 192 to 193, a link occurs utilizing a free ordering of the row followed by a repetition of bar 190 transposed a minor sixth above. Following the link, a new ostinato figure occurs in bars 195 to 197 from a free ordering of the row. Bar 195 is repeated twice more, identically in bar 196 and varied slightly in the first three beats of bar 197.

Bar 198 is an extension of the material of the previous bars and acts as a link into the next segment, bars 199 to 208. This segment features a new ostinato figure surrounded by chordal pedals in treble and bass. Each pedal is comprised of a major sixth and the intervallic distance between them is that of a minor second.

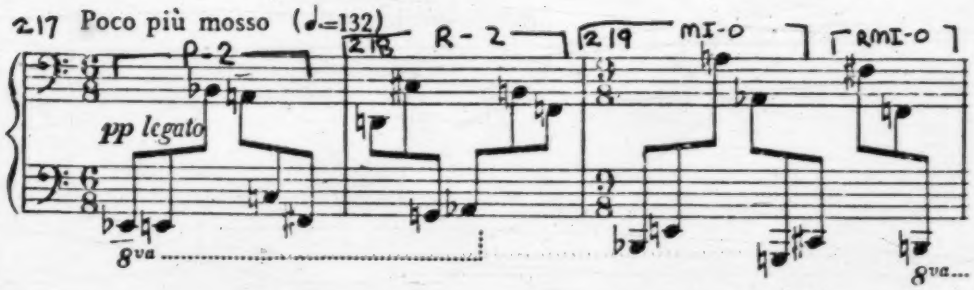


Example 32. Bars 199-200.

The notes are from the row with the upper pedal coupling notes 4 and 5 and the lower pedal, notes 9 and 8. The ostinato pattern, utilizing a free ordering of the row in bars 199 and 200, is followed by another pattern in bars 201 to 202, which is repeated in bars 203 to 204 and 206 to 207.

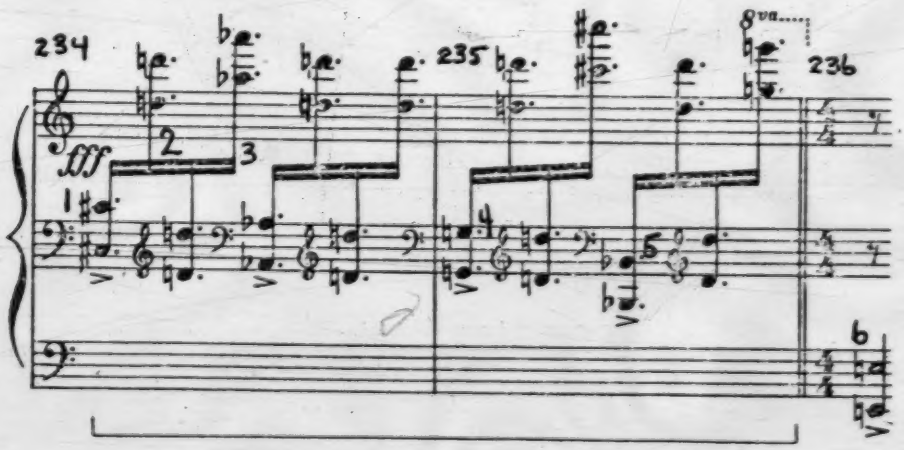
The ostinato pattern in bars 201 to 202 and its subsequent repetitions exploit the notes 1 and 6 of the first hexachord of P-0. This ostinato is interrupted by another new pattern in bar 205. The repetition of bar 205 in bar 208 leads to a sequence in bars 209 to 210. This sequence, which is also derived from a free ordering of the row, leads into a transposed repetition of bars 184 to 186 in bars 211 to 213. In the upper stave, the ostinato figure is transposed a major third above while the material in the lower stave appears in I-6. In the closing of this section, the theme, bars 214 to 216, is stated simply, using P-0 in both staves followed by a fragmented utilization of the chromatic line.

Example 33. Bars 214-216.

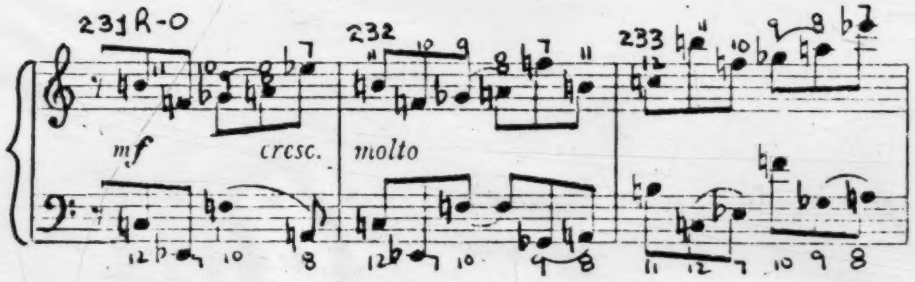
Section D, bars 217 to 236(1), is characterized by the rapid succession of changes of various forms and transpositions of the row. In bars 217 to 219, the row is used as follows:



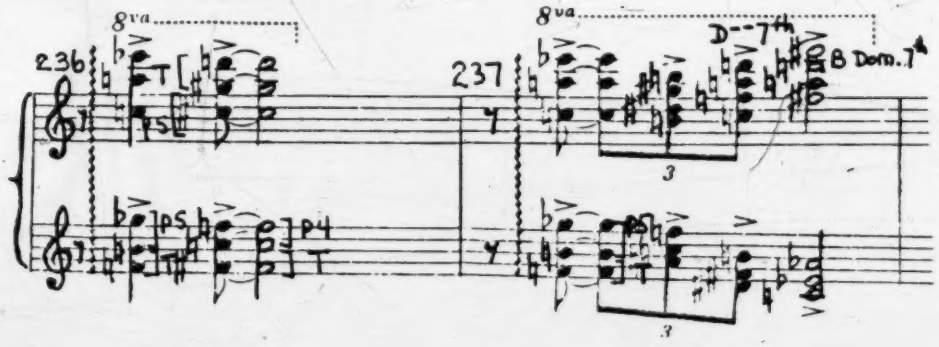
Example 34. Bars 217-219.

These three bars are repeated in bars 220 to 222. An extension, utilizing a free ordering of the row, follows in bar 223. From bars 224 to 235, the composer exploits the second hexachord of R-0 in the upper stave by frequently repeating it in the successions of notes 10 9 8 7 / 11 10 9 8 7 etc. This flow of repetition is interrupted intermittently by a fragmented announcement of the theme in octaves.

The octave statement is gradually extended each time until in bars 234 to 236(1) a complete statement of the first hexachord of P-0 is heard in accented octaves, though somewhat embellished by a repetition of the second note.

Example 35. Bars 234-236.

In bars 224 to 226(3) and 227 to 228(3), R-0 is accompanied by an ostinato figure in the lower stave, making free use of the notes from both hexachords of P-0. A change of the repeated figure of R-0 is evident in bars 229 to 230. Here there is a free ordered pattern, using the notes of the second hexachord of P-0. The accompaniment figure also is changed. The R-0 pattern returns in bars 231 to 233 and has a new ostinato figure formed solely from the second hexachord of P-0.

Example 36. Bars 231-233.

The coda, bars 236 to 245, is in two distinct sections. The first, bars 236 to 238, recalls the material used in the Introduction of the work. The second, bars 239 to 245 is a repetition of the bravura passage which occurred in Variation I. The accented chords in the upper two staves of bars 236 to 238 are formed using the notes of the mode with the exception of the note C♯ in bar 236 and the G♮ in bar 238. As in the Introduction, the chords here in both staves are constructed independently of each other. Each chord is also similar in construction to those that occurred in bars 1 to 4. The chords in bars 236 to 238

are generally major, minor, and diminished triads. The exceptions occur in bars 236 to 237 as shown in the following example:

Example 37. Bars 236-237.

The chords in the middle stave of bar 238, with the exception of the last chord, are a repeat of the chords in the lower staves of bars 3(3½) to 4. Underlining this chordal segment in the bass are two partial presentations of the theme. In bar 236(3½-4), a modal presentation occurs followed in bar 237 by the theme in P-3.

The work closes with a repeat of the bravura passage, bars 239 to 245, which first occurred in Variation I, bars 75 to 79 and a final partial reordered statement of the row, bars 244 to 245, using notes from both hexachords. The final note with which the composer chose to end the work is C♯, the first note of the series.

Rhythm, Meter, Contrapuntal and Harmonic Textures

Rhythmic concepts in the twentieth century are an outgrowth of prior practice and are now freer and more varied than in the past three centuries. During the latter,

the conventions which inhibited rhythmic flexibility were the constant metric patterns, regularly spaced bar lines, and four-bar phrases. Today, though time signatures, bar lines, and four-bar phrases are not defunct, their strict domination of rhythmic organization has been broken. New possibilities have been added to those inherited from our predecessors and complete freedom from arbitrary restrictions is used by many twentieth-century composers.

In serial music, diversity is achieved by the use of varied rhythms. The rhythm gives life to the notes of the series and in conjunction with the series gives identity and unity to the work. The rhythm must also take over part of the function of harmonic suggestion in tonal music. Rhythm plays an important role of propelling the music towards points of tension and climax and also in leading the succession of sounds into periods of relaxation and repose.[10]

Rhythmic variety within constant bars is achieved by eliminating or camouflaging the usual rhythmic accents. Bars written in varied lengths and meters also provide a source of rhythmic variety. These require changing time signatures, a trademark of twentieth-century rhythm.

One must not forget the importance of rests in the discussion of rhythm. These periods of silence can have dramatic effects at points of tension, and in moments of relaxation can produce the maximum effect of repose.

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[10] R. S. Brindle, Serial Composition (London: Oxford University Press, 1966), p. 25.

Silence is the greatest contrast to rhythmic stress, harmonic tension and rapid movement. In serial music it is an effective means of structure.[11]

In a majority of twentieth-century compositions, serial and otherwise, there is a certain trait in the rhythmic continuity which evades the traditional phrase structure as found particularly in music of the classical era. Irregular phrase structure is a common phenomenon in the music of today inasmuch as it is the factor which evolves from rhythmic variety.

In Variations, Jacques Hétu utilizes the rhythmic concepts discussed above in conjunction with a careful blending of contrapuntal and harmonic textures to create a unique musical expression.

Introduction

In bars 1 to 5(1) of the Introduction, one notices at once the presence of two contrasting textures: linear and harmonic. The union of the two textures provide the contrapuntal and rhythmic characteristics of this fragment. Each has its own characteristic syncopated rhythm.
It can be seen that the basic rhythmic pulse in bars 1 and 2 is obscured by the combined result of a sixteenth rest followed by the first note of the theme in accented octaves and the accented chordal harmonic statement occurring on

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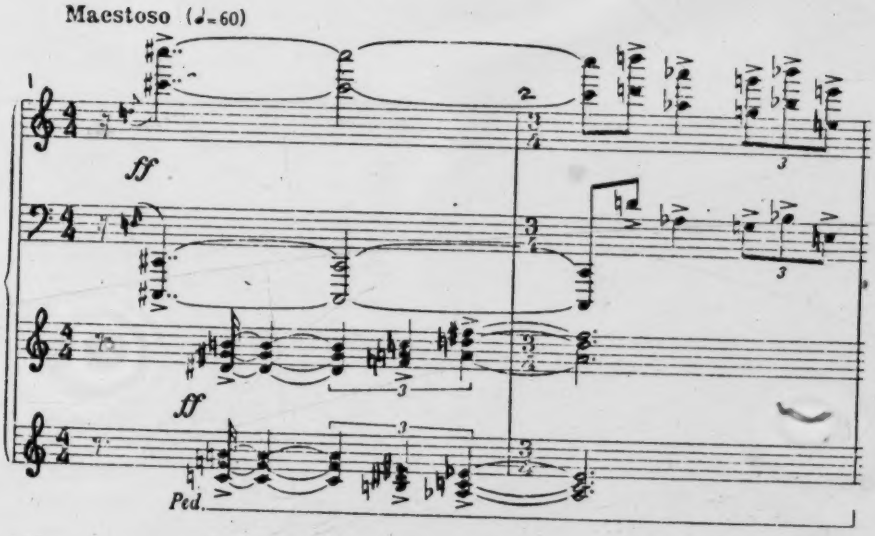
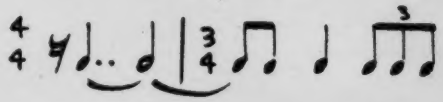
[11] R. S. Brindle, Serial Composition (London: Oxford University Press, 1966), p. 26.

a normally unaccented subdivision of beat one. The pulse is further obscured by the use of tied notes over the bar lines.

Example 38. Bars 1-2.

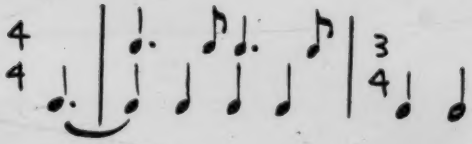
The same procedure follows in bars 3 to 5(1). In bars 4 to 5(1), the written rhythmic accelerando propels the music forward to a dramatic completion of this segment. The two sixteenth rests which immediately follow the accelerando also help to indicate the end of this first segment.

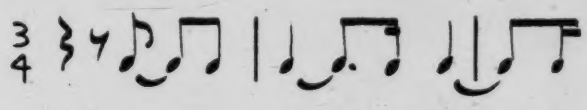
Bars 5(3½) to 9 are characterized by a short period of repose indicated not only by tempo and dynamic change, but also by a thinner texture. The rhythm is at first in simple quadruple and triple meter. As the rhythm gathers momentum, the texture also becomes more contrapuntally dense and the music is propelled forward into the final section of the Introduction. Except for bar 10, this section exploits basically cadenza-like rhythmic figuration with trills and triplet thirty-second groups.

Throughout the Introduction, the row is used in the following diversified rhythms:

(1)  Bars 1-2

(2) 3-5

(3)  5(3½)-7(2)
(4)

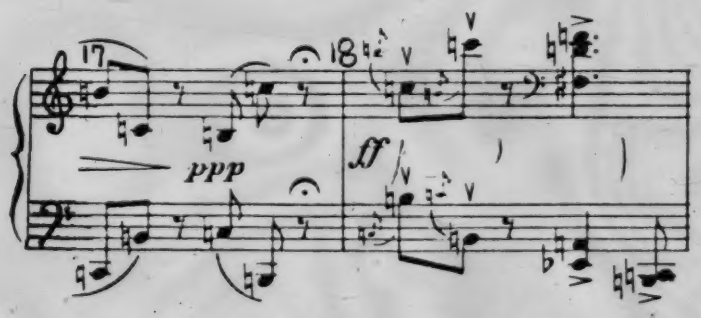
(5)  7-9

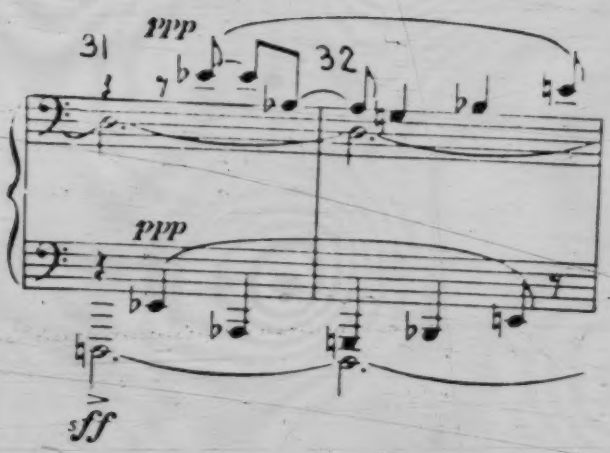
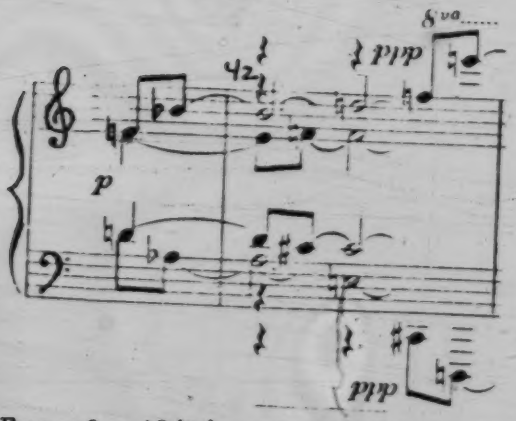
(6) 11-12

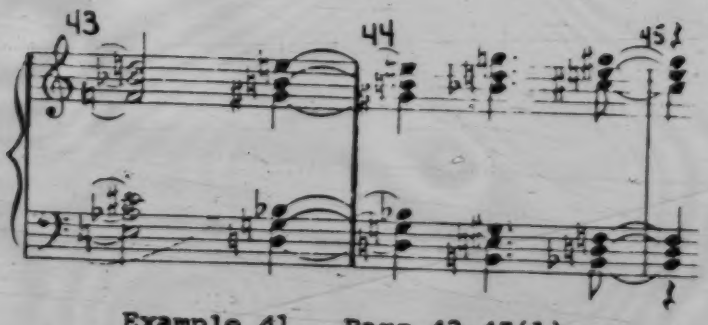
Mention must also be made of the meter changes which occur in the Introduction, as they provide another source of rhythmic variety. With changing meters, the bar lines are no longer bound to fixed positions but move fluidly to delineate rhythmic patterns and to suggest different rhythmic stresses. The meter changes as they occur in bars 1 to 12 are as follows:

Bars	1	2	3-6	7-9	10-12
Meter	4/4	3/4	4/4	3/4	4/4

Variation I

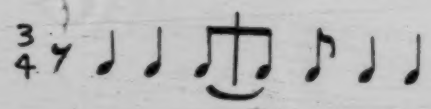
In this variation, the canonic presentation of the theme is characterized by a syncopated rhythm and no meter changes. The use of rests to indicate phrase endings is of importance here. These occur in bars 17, 22, 27, 28, and in the repeat of this section in bars 58 to 74. The placement of a fermata over the rests in bar 17(3½) creates a sense of anticipation by delaying the fortissimo interjection which follows in bar 18. The rest in bar 18 allows the accented chordal link, beats 2½ and 3, to occur on an offbeat which is as totally unexpected to the listener as is the beginning of bar 18.

Example 39. Bars 17-18.

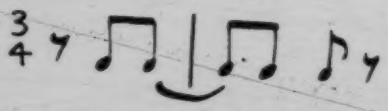
The texture of this variation is characterized by contrapuntal two-part writing which occasionally expands to three or more parts.

Example 40(a). Bars 31-32.

Example 40(b). Bars 41(3)-42.

A contrast in the texture occurs in bars 43 to 49(1) and again in bars 56 to 57 in which the writing is homophonic.

Example 41. Bars 43-45(1).

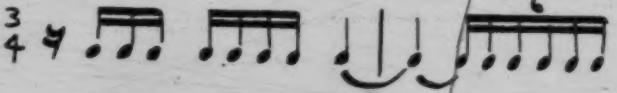
The rhythm is also changed in these segments to a more regular motion suited to homophonic writing. Further rhythmic contrast occurs in the coda, bars 75 to 81(1), where the broken octave bravura passage is written in a rapid succession of continuous sixteenth-note motion.

There are fewer rhythmic presentations of the row in Variation I than there were in the Introduction. These presentations are illustrated below:

(1)  Bars 13-14

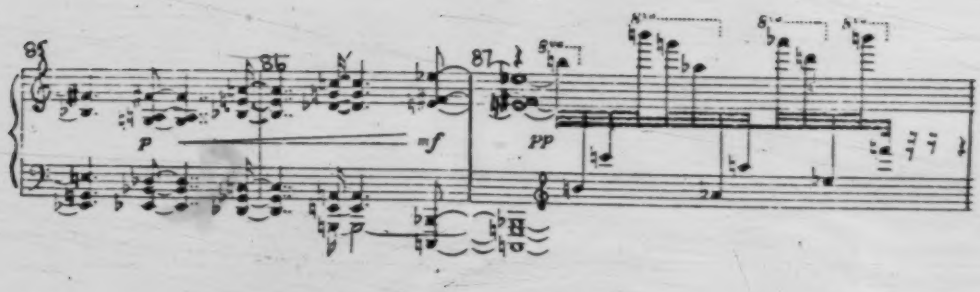
(2)  22(3)-23(2)

(3) 31-32

(4)  33-34

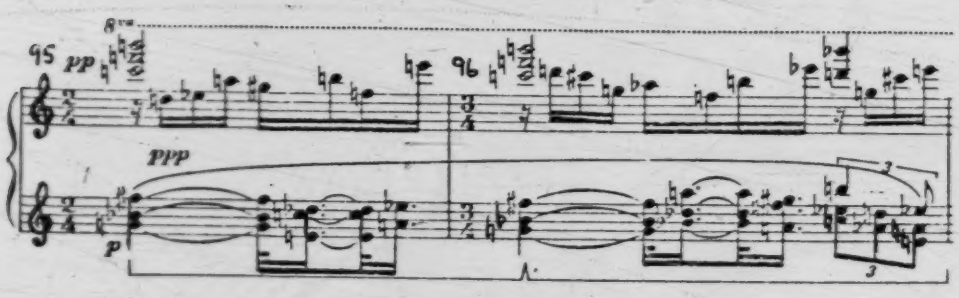
(5) 75-80

Variation II

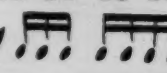
In Variation II, the composer skillfully combines and alternates several contrasting textures. In bars 81(3) to 90, the segments of homophonic texture are interspersed by disjunct linear fragments.

Example 42. Bars 85-87.

In this segment an alternation also occurs between a dotted syncopated rhythm and a rapid figuration in thirty-second notes. It should also be noted that the basic rhythmic pulse is obscured by the use of tied notes over the bar line as well as within the bar.

Each of the 3-bar segments ends with rests during which no new sounds are produced. The rests indicate phrase divisions. Although there is not a definite period of silence, the rests indicated in the score give the previously sounded notes time to fade out before moving into the next segment.

In bars 91 to 94, a polyphonic texture is introduced. Each voice enters in a fugal manner, each line having its own independent rhythm. The following segment, bars 95 to 107, is characterized not only by the independent rhythms occurring in both staves, but also by the contrapuntal texture produced by combining the homophonic motion in the lower stave. These rhythms occur simultaneously with the contrasting line appearing in the upper staff.

Example 43. Bars 95-96.

The rather dense texture of the section discussed above leads into two contrasting bars in simple two-part writing, bars 108 to 109. From bars 110 to 114, there is a return of the material from the previous sections. The basic rhythmic and textural aspects are not altered. In bar 115, a new rapid rhythmic figuration occurs which aids in propelling the musical idea of this variation to its final closing in bars 116 and 117.

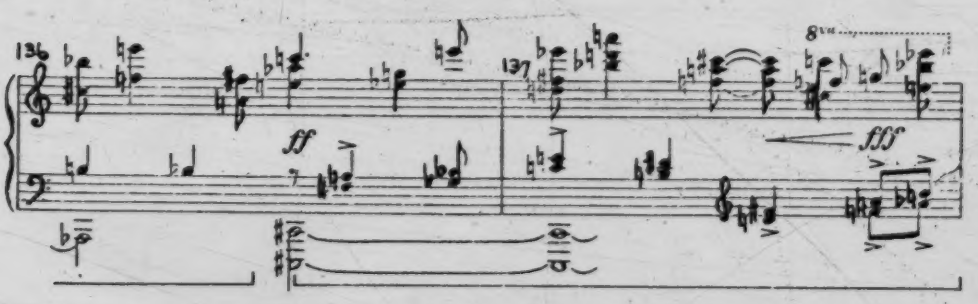
There are only two rhythmic presentations of the actual row that occur in Variation II. It is the mode that is given priority throughout. In Section B, bars 91 to 107, the row is found only in the following rhythm:  . The other rhythmic presentation is found in bar 115 with the RMI-0 of the second hexachord occurring as follows: .

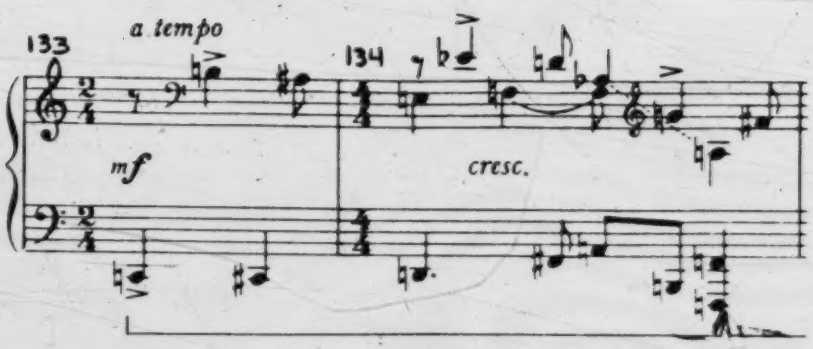
The meter changes are numerous in this variation and alternate between $\frac{2}{4}$, $\frac{3}{4}$, and $\frac{4}{4}$. The majority of changes occur in Section B, bars 91 to 107. The meter changes throughout the variation are as follows:

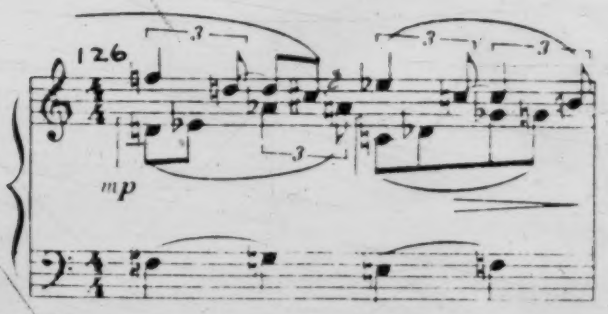
Bars	82-92	93-94	95	96	97	98	99	100	101-102
Meter	$\frac{4}{4}$	$\frac{3}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{2}{4}$	$\frac{4}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{2}{4}$

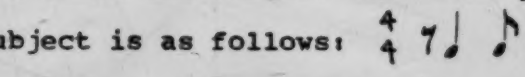
Bars	103	104	105-107	108-113	114	115-117
Meter	3/4	2/4	3/4	4/4	3/4	4/4

Variation III

Variation III, a fughetta, is characterized by a contrapuntal fugal texture in three voices. The composer does not deviate from having at most three voices occurring simultaneously except in the closing section in bars 136 to 137. Here the texture becomes more dense and expands up to seven voices. This is the result of using octave doublings and of coupling fragments in thirds.

Example 44. Bars 136-137.

The rhythm of the fughetta is quite straightforward. Syncopation is not as extensive as in the two previous variations. Though the subject itself and its subsequent entries are presented in a slightly syncopated rhythm, the syncopation does not become pronounced until the last section which begins with the stretto in bars 133 to 137.

Example 45. Bars 133-134.

A triplet figure which first occurs in the counter-melody in bar 122, is later exploited in the episodic sections. This is especially prevalent in bars 126 and 140 where the resulting rhythm is two against three.

Example 46. Bar 126.

The rhythmic presentations of the row throughout this variation are either the complete or partial rhythmic form in which the subject was first presented. The rhythm of the subject is as follows: 

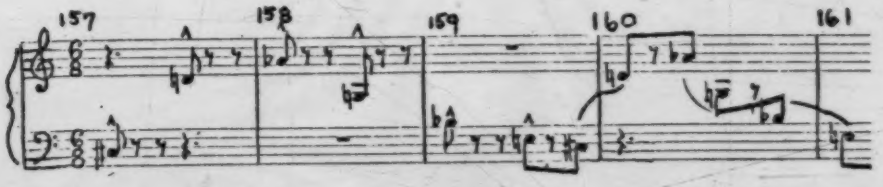
The meter changes that occur are numerous and, like those that occurred in Variation II, alternate between $\frac{2}{4}$, $\frac{3}{4}$, and $\frac{4}{4}$. The metric changes are as follows:

Bars	117A-118	119	120	121	122	123-124	125
Meter	4/4	3/4	2/4	4/4	3/4	4/4	2/4

Bars	126-127	128	129-131	132	133	134-146
Meter	4/4	2/4	4/4	3/4	2/4	4/4

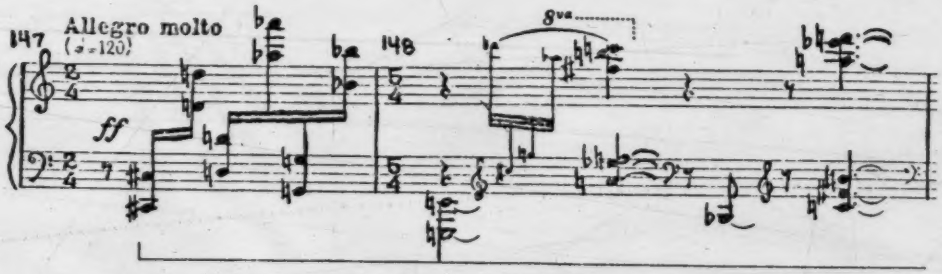
Variation IV

The chief characteristics of Variation IV are its lean texture and propulsive rhythmic momentum. The variation as a whole is harmonically rather sparse in comparison to the previous three variations.

The rhythmic momentum results from the extensive use of compound symmetrical and asymmetrical meters. This momentum is skillfully projected through broken textural writing with a definite line. Some fragmentation does occur but only in bars 157 to 161(1) and 214 to 216.

Example 47. Bars 157-161(1)

The asymmetrical meters that the composer chooses to use are as follows: $\frac{5}{8}$, $\frac{10}{8}$, $\frac{5}{8}$, and $\frac{7}{8}$. These are placed at strategic points to interrupt the regular rhythmic momentum. The first rhythmic disruption occurs immediately in the opening few bars of this variation, bars 147 to 148.

Here the symmetrical meter $\frac{2}{4}$ is followed by the asymmetrical meter $\frac{5}{4}$. This is the only time $\frac{5}{4}$ is used.

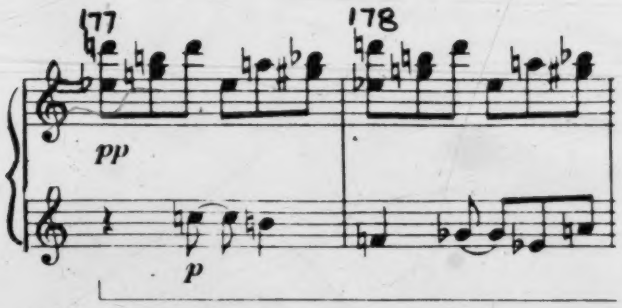


Example 48. Bars 147-148.

Asymmetrical meters are further used in bars 171, 179, 188 to 189, 191, 195 to 198, 205, and 216. Of the asymmetrical meters, $\frac{5}{8}$ occurs most frequently. The grouping of the beats within each asymmetrical bar is consistent within each meter used. The grouping of the beats which occur are as follows: $\frac{5}{4}$ (2 + 3); $\frac{5}{8}$ (3 + 2); $\frac{7}{8}$ (3 + 2 + 2); and $\frac{10}{8}$ (3 + 2 + 2 + 3).

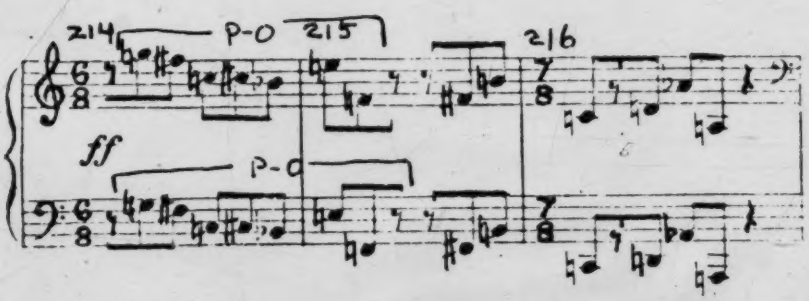
Compound meters are used much more extensively than the asymmetrical meters. $\frac{6}{8}$, $\frac{9}{8}$, and $\frac{12}{8}$ meters dominate the majority of this variation. The beats within each bar using these meters are grouped symmetrically as follows: $\frac{6}{8}$ (3 + 3) and sometimes (2 + 2 + 2); $\frac{9}{8}$ (3 + 3 + 3); and $\frac{12}{8}$ (3 + 3 + 3 + 3).

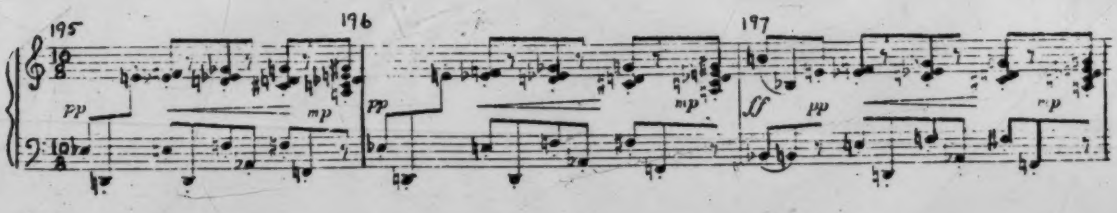
Syncopation is prevalent throughout this variation and occurs through various rhythmic means. In bars 177 to 178, the composer achieves syncopation by combining the two different groupings of beats that occur in $\frac{6}{8}$ as was discussed previously.

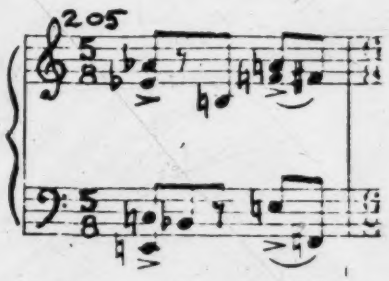


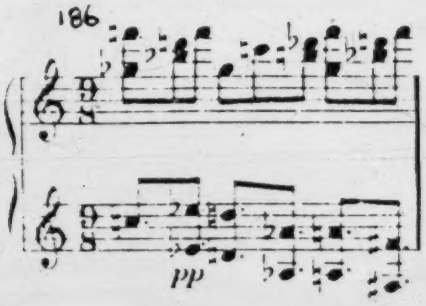
Example 49. Bars 177-178.

Similar writing also occurs in bars 184 to 185 and in bars 211 to 212.

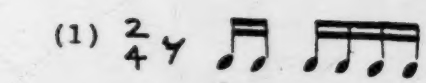
Skillful use of rests is also used to create syncopation. This is illustrated clearly in the following example.

Example 50. Bars 214-216.

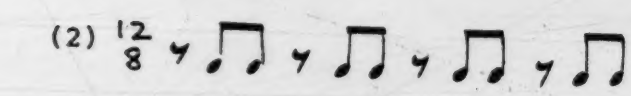
In bars 195 to 197, syncopation results from the asymmetrical groupings of the notes in each of the bars.

Example 51. Bars 195-197.

Syncopation is even more pronounced where accents are indicated in bars using asymmetrical meters as is shown in the following example:

Example 52. Bar 205.

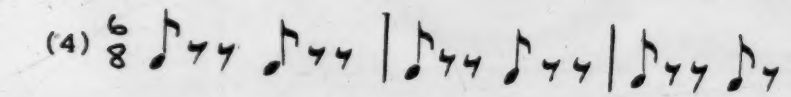
The composer employs the rhythmic device of hemiola as another source of rhythmic variety. In the two $\frac{9}{8}$ bars, 186 and 213, the superimposition of $\overset{3}{\overset{\frown}{\bullet\bullet\bullet}}$ and $\overset{3}{\overset{\frown}{\bullet.\bullet.}}$ occurs.

Example 53. Bar 186.

The rhythmic presentations of the row found in this variation are more numerous than in any of the previous variations. The rapid shifts between different rhythmic presentations of the row is in keeping with the propulsive momentum. The presentations found are as follows:

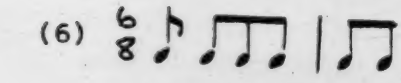
(1)  Bars 147

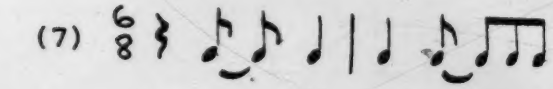
(2)  149

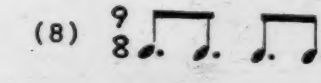
(3) 154

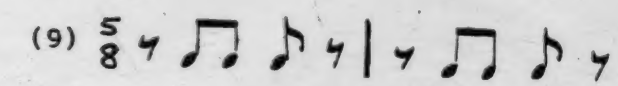
(4)  157-159(3)

(5) 159(6)-161(2)

(6)  161(3)-163(2)

(7)  177-178

(8)  186

(9)  188-189

(10) 211-212

(11) 224

(12) 234-235

The composer's use of rapidly changing meters is very extensive in Variation IV. The meter changes that occur are as follows:

Bars	147	148	149	150	151-152	153	154-156
Meter	$\frac{2}{4}$	$\frac{5}{4}$	$\frac{12}{8}$	$\frac{9}{8}$	$\frac{2}{4}$	$\frac{4}{4}$	$\frac{12}{8}$

Bars	157-170	171	172-178	179	180-182	183
Meter	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{6}{8}$	$\frac{9}{8}$

Bars	184-185	186	187	188-189	190	191	192-194
Meter	$\frac{6}{8}$	$\frac{9}{8}$	$\frac{6}{8}$	$\frac{5}{8}$	$\frac{6}{8}$	$\frac{5}{8}$	$\frac{6}{8}$

Bars	195-197	198	199-204	205	206-212	213
Meter	$\frac{10}{8}$	$\frac{5}{8}$	$\frac{6}{8}$	$\frac{5}{8}$	$\frac{6}{8}$	$\frac{9}{8}$

Bars	214-215	216	217-218	219	220-221	222
Meter	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{6}{8}$	$\frac{9}{8}$	$\frac{6}{8}$	$\frac{9}{8}$

Bars	223-235	236-238	239-243	244-245
Meter	$\frac{6}{8}$	$\frac{4}{4}$	$\frac{3}{4}$	$\frac{2}{4}$

The rhythmic and textural aspects of the coda, bars 236 to 245 have not been discussed here, as similar passages have already been dealt with in detail in previous sections. Bars 236 to 238 harken back to the two contrasting textures as was observed in the Introduction, bars 1 to 5(1). The only difference occurring is the conspicuous absence of the upper line. The second portion of the coda, bars 239 to 245, is the same as bars 75 to 79 in Variation I.

Summary of the Structural and Stylistic Analysis

In the structural analysis of these Variations, the formal structure, the treatment of the row, and the rhythmic and textural aspects of the work have been examined.

The composer remains firmly attached to the structural forms of the past by exploiting techniques deriving from the variation principle. It has been noticed that each variation is constructed using familiar ternary and fugal forms. The composer skillfully avoids the exigencies imposed by the tone row by using a mode from those catalogued by his teacher Messiaen in conjunction with the row.

In these Variations, incisive rhythms, percussive motifs, and syncopation are some of the characteristic elements that the composer uses to create a dynamic musical language. Many pages also gravitate around pedal points and insistent ostinato figures. The harmonic language that the composer uses is comprised chiefly of parallelisms and composites of serial and chromatic techniques.

Pianistic Aspects of the Writing

Jacques Hétu's favourite medium of musical expression is the piano[12] and in the Variations he does show an unmistakable affinity for the instrument. Though these Variations are unabashedly theatrically inclined, they are held together by a sure sense of the purely musical values inherent in their material.

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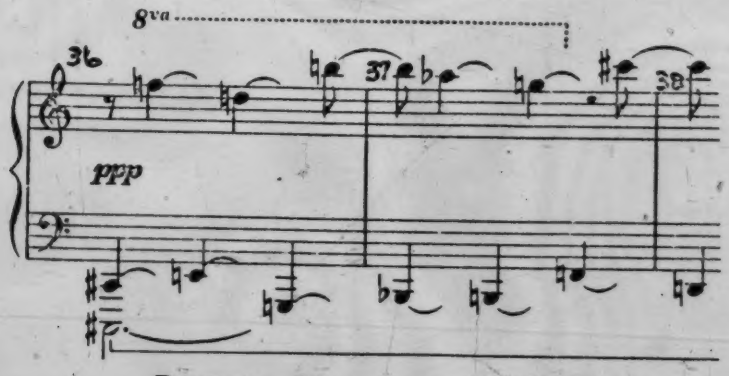
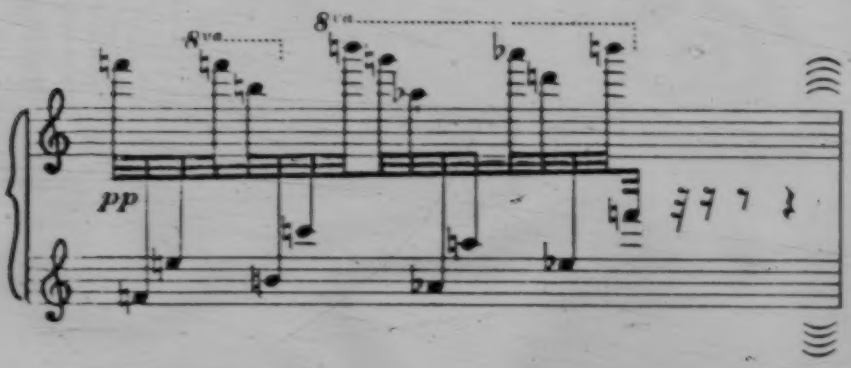
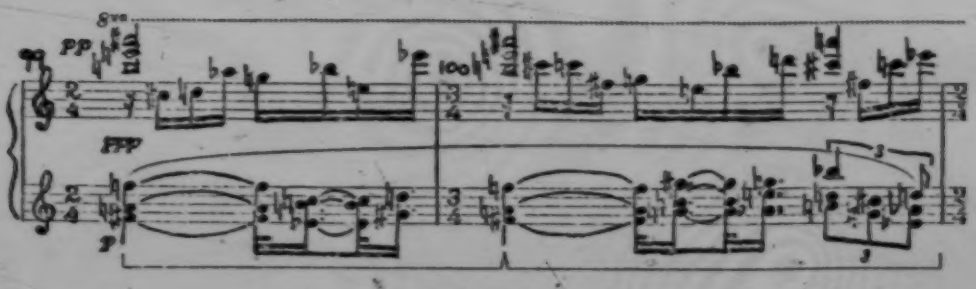
[12]"Jacques Hétu-a portrait," Musicanada 27 (Mar. 1970): 9.

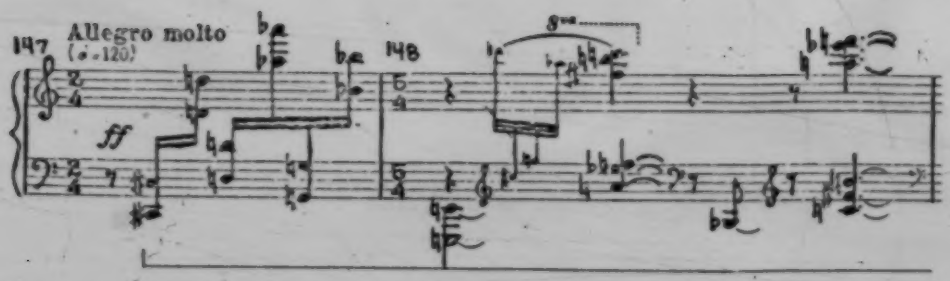
The Variations are written idiomatically for the piano and everything works, sounds, and lies rewardingly beneath the fingers. The capability of the piano to be used as both a lyrical and percussive instrument is skillfully explored by the composer. The means by which he expounds these capabilities are through the use of various contrasting registers, dynamics, and articulation, not to mention the copious and specific damper pedal indications.

Pianistic Range

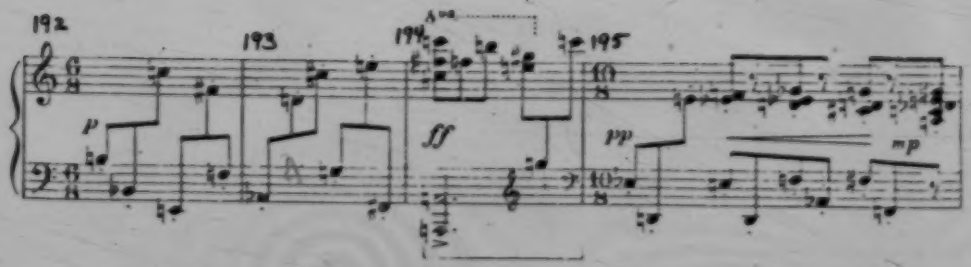
The Variations encompasses the complete range of the keyboard. The use of widely spaced registers is prevalent. In the Introduction, the melodic statement is presented in accented double octaves in the extreme upper and lower registers. This is contrasted by the use of the upper middle register containing the chordal harmonic statement. The materials in the contrasting registers are both presented fortissimo. In Variation I, another example occurs with the material appearing simultaneously in opposing registers, in triple piano. The musical result is quite different here, creating an impressionistic quality.

Example 54. Bars 36-38(1).

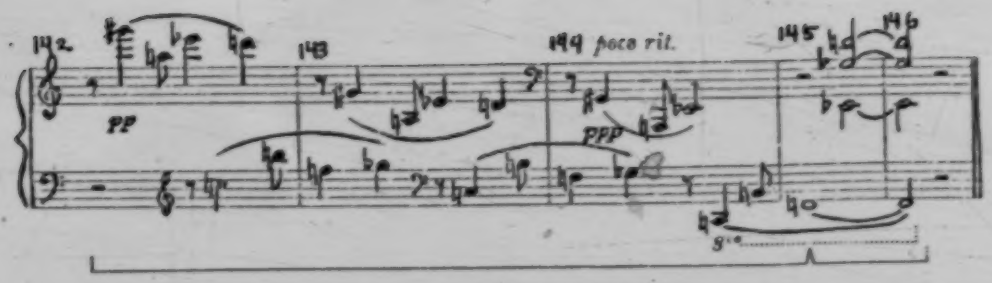
The extreme upper register of the keyboard is exploited in Variation II. The material is presented either in pianissimo or triple piano as is clearly shown in the following two examples:

Example 55(a). Bar 90.

Example 55(b). Bars 99-100.

In Variation IV, the use of widely spaced registers in conjunction with the propulsive rhythmic impetus immediately brings the dramatic force into focus.



Example 56. Bars 147-148.

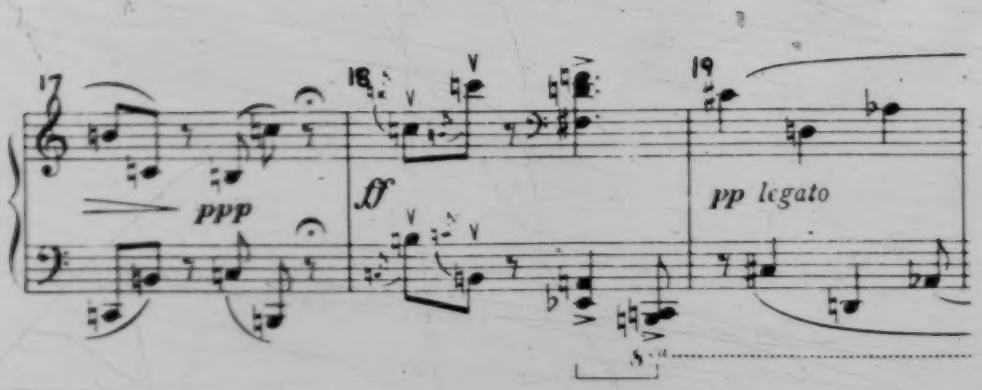
The composer at times suddenly leaps from the middle register to opposite extreme registers and then back to the point of departure. Usually, when this occurs, there is also a change in the dynamic level which intensifies the contrast.

Example 57. Bars 192-195(3).

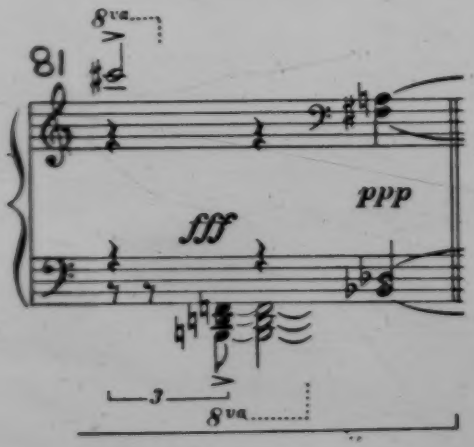
In the Vivacissimo section of Variation I, bars 75 to 81(2), the composer creates a written crescendo not only through his indications, but by writing the bravura passage starting in the lower register of the keyboard and continuing up to the opposite register. The opposite effect is created in Variation III, bars 142 to 145. Here the composer starts in the upper register in pianissimo and works down to the lower registers to a triple piano, thus creating a subtle diminuendo.

Example 58. Bars 142-145.

Dynamics

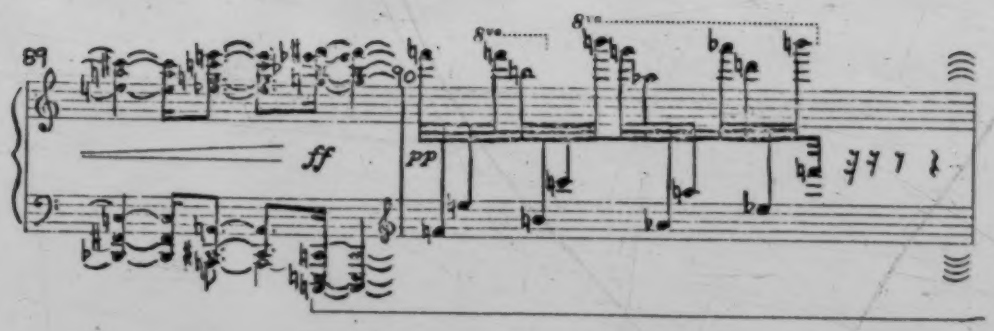
Throughout the Variations, the composer exploits the dynamic capabilities of the piano with precise indications. He is able to create a significant amount of tension through the means of loud volume, contrasting silence, and strong dynamic contrasts. The Introduction, bars 1 to 12, exemplifies the above statement clearly. The first four and a half fortissimo bars are immediately followed by a contrasting two and one sixteenth beats of silence. The next few bars, 5(3½) to 8, are written in the contrasting dynamic of pianissimo which produces a brief period of relief from the tension created in the previous bars.

With the crescendo from mezzo-forte to fortissimo in bar 9, maximum tension is again restored. The sixteenth rest in bar 10, followed by three bars in the still louder dynamic of triple forte, ensures the effect of maximum tension.

In Variation I, brief periods of extreme dynamic contrasts occur, interrupting the generally quieter mood evoked, as indicated in the following example:

Example 59. Bars 17-19.

A very effective use of strongly contrasting dynamics occurs in bar 81. Here the triple forte marks the explosive end of Variation I and the contrasting triple piano indicates the beginning of Variation II. The amount of dramatic tension created in this one bar is greatly due to the fact that the dynamic contrast occurs in such a short period of time.

Example 60. Bar 81.

A further example of this treatment is evident in Variation II as shown in the following example:



Example 61. Bars 89-90.

In the closing section of Variation III, sudden dynamic changes occur in only two areas: bars 132 to 133 and bars 137 to 138. The larger portion of the fughetta is dynamically more subtle.

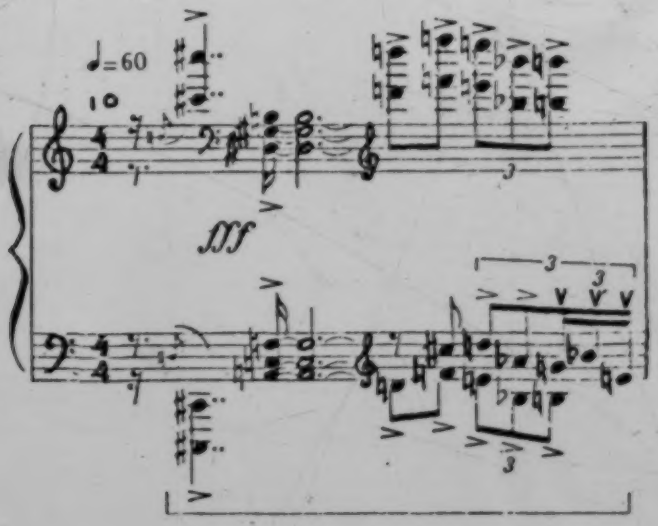
The use of very loud dynamics for long periods of time is again prevalent in Variation IV. The dynamic of fortissimo, when used in conjunction with the rhythmic drive of this variation, creates a maximum degree of tension.

To counteract the great intensity produced through the methods discussed above, the composer incorporates periods of relaxation. This is brought about through the use of quiet dynamics, the avoidance of extreme registers, less dynamic contrasts and legato phrasing.

Articulation and Use of Pedal

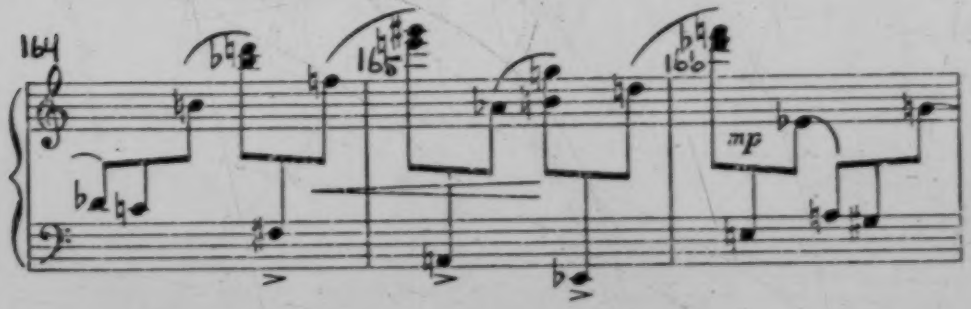
The piano is capable of producing a great variety of sounds and the composer exploits these through various means of articulation. The various articulations required are indicated by the use of slurs, staccato, and accent markings.

To indicate that the performer is to produce a hard,

percussive sound, the composer uses three types of accents: (1) $\overset{>}{\underset{|}{\bullet}}$, (2) $\overset{\vee}{\underset{|}{\bullet}}$, and (3) $\overset{\wedge}{\underset{|}{\bullet}}$. The first type is used consistently in the Introduction and the subsequent variations. It is interesting to note that the damper pedal is held down through all the various passages using this particular accent marking. The use of the damper pedal here removes some of the edge from the sound produced.

Example 62. Bar 10.

Hard, dry sounds are indicated by the two remaining accents: $\overset{\vee}{\underset{|}{\bullet}}$ and $\overset{\wedge}{\underset{|}{\bullet}}$. These are used sparingly and appear only four times: (1) Introduction, bar 5 and 10, (2) Variation I, bar 18 and Variation IV, bars 157 to 159.

Non-legato dry playing is indicated chiefly through the use of staccato dots. Such indications appear in abundance in Variation I, III, and IV in conjunction with slurred notes. In Variation II staccato notes appear only in bar 106.

Slur markings are found in abundance. A particularly good use of the slur is found in the subject of the fughetta. The slur helps to give the components of the subject their particular individuality which aids the listener in following the course of the subject. Slurs are also used to help disguise the regular rhythmic pulse. By playing the slurs as indicated, an unwritten accent occurs on the first note of the slur, causing deviation from the regular pulse.

Example 63. Bars 164-166.

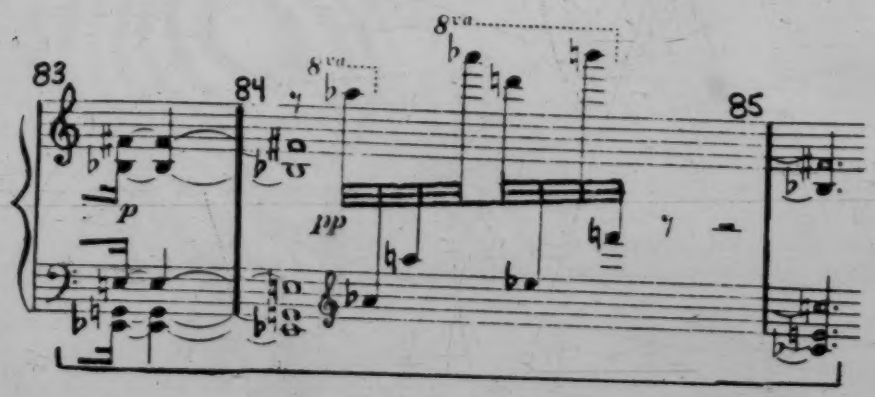
The composer's use of the damper pedal in this work is quite extensive. Precise indications are given to the performer. In the Introduction, the damper pedal helps to sustain the C# pedal which would otherwise be impossible in this context. This procedure is used frequently during the course of this work.

Besides the pedal being used to sustain long notes, its chief function here, as it was with the French Impressionistic composers, is to aid in producing certain sonorities. The pedal is held down frequently through two or more bars at a time. The audible result is a blending of the individual sounds into one overall sonority. One must not

disregard the importance that the dynamics have in helping to create various colors in these particular passages.

The impressionistic subtle liquid colors are clearly recognizable in passages of very quiet dynamics as seen in Variation I, bars 36 to 41. A quite different coloristic effect is produced through the use of very loud dynamics as in the Introduction, bars 1 to 5(½); Variation I, bars 71 to 74; and Variation IV, bars 234 to 235.

A depressed damper pedal can also produce sympathetic vibrations of the strings. Good examples are found in Variation II in bars 83(4) to 85(1), 86(4) to 88(1) and 89(4) to 90. Here an opportunity is given to other strings to vibrate in the rest periods.



Example 64. Bars 83(4)-85(1).

Much of the composer's keyboard style may be viewed from the demands made of the performer, as it concentrates on virtuosic effects which test the abilities of the player. Cadenza-like figures, wide leaps from one register to another,

use of large chords, and octaves are found in this work. The use of sharp accents (falling on both strong and weak beats) and sudden extreme changes of dynamics are also found in abundance. These characteristics are found not only in the Variations, but also in the composer's other piano compositions.

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APPENDIX I

PIANO RECITAL
UNIVERSITY OF ALBERTA, EDMONTON
OCTOBER 28, 1977

PROGRAM

THE DEPARTMENT OF MUSIC

of

THE UNIVERSITY OF ALBERTA

presents

THERESA HRYCIW

pianist

Friday, October 28, 1977 at 8:00 p.m.
Room 1-23, Fine Arts Building

TOCCATA NONA ..... Alessandro Scarlatti
(1660-1725)

SONATA IN G MINOR, K. 31 (1739) ..... Domenico Scarlatti
(1685-1757)

SONATA IN E FLAT MINOR, OP. 26 (1949) ..... Samuel Barber
(b. 1910)

Allegro energico
Allegro vivace e leggero
Adagio mesto
Fuga: Allegro con spirito

INTERMISSION

SONATA IN F MINOR, OP. 5 (1854) ..... Johannes Brahms
(1833-1897)

Allegro maestoso
Andante expressivo
Scherzo: Allegro energico
Intermezzo (Rückblick): Andante molto sostenuto
Allegro moderato ma rubato

This recital is presented in partial fulfillment of the requirements of the Master of Music degree for Mrs. Hryciw.